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PERSONAL.

Mr. Ray D. Lillibridge has resigned his position as Advertising Manager of the C. W. Hunt Co., of New York city.

Mr. F. O. Melcher, Acting General Superintendent of the Fitchburg R. R., has been appointed General Superintendent.

Mr. Theo. W. Hill has been appointed Engineer on the Kanawaha & Michigan Ry. (Ohio Central Lines), with headquarters at Charleston, W. Va.

Mr. Theodore H. Curtis has been appointed Mechanical Engineer of the Erie R. R., with headquarters at Susquehanna, Pa., to succeed Mr. Howard E. Williams, resigned.

Mr. W. H. Ijams, of Baltimore, Md., Treasurer of the Baltimore & Ohio R. R. Co., has resigned his position. He will be succeeded by Mr. J. V. McNeal, Assistant Treasurer.

Mr. D. W. McMorris has been placed in charge of the U. S. engineering corps which has undertaken the construction of fortifications at Marrowstone Point, near Port Townsend, Wash.

Mr. Charles J. Register, of Wilmington, Del., has been appointed Superintendent of Bridges on the Central R. R. of New Jersey to succeed Mr. R. J. Swackhamer, of Dunellen, N. J., who has resigned.

Mr. George H. Day, President of the Columbia & Electric Vehicle Co. and Vice-President of the Pope Mfg. Co., has been elected President of the Electric Storage Battery Co., to succeed Mr. Isaac L. Rice, resigned.

Mr. Hiram Phillips, M. Am. Soc. C. E., of St. Louis, Mo., has been retained by the council of Hannibal, Mo., as Consulting Engineer in the negotiations for the municipal ownership of the plant of the Hannibal Water Co.

Mr. F. E. Schall has been appointed Bridge Engineer of the Lehigh Valley R. R., with office at South Bethlehem, Pa. Mr. E. B. Ashby has been appointed Assistant Engineer Maintenance of Way, with office at South Bethlehem.

Mr. Gustave R. Tuska, Assoc. M. Am. Soc. C. E., of New York city, has been elected President and Chief Engineer of the Atlantic Construction Co., which has a number of contracts for the construction of large manufacturing plants in the South.

Professor Edward H. Jenkins, of the Connecticut Experiment Station, New Haven, has been chosen Chairman of the Connecticut State Sewerage Board. Mr. Robert H. Cairns, M. Am. Soc. C. E., City Engineer of Waterbury, Conn., has been elected Secretary.

Mr. F. J. Stout has been appointed General Superintendent of the Wheeling & Lake Erie R. R., with headquarters at Canton, O. Mr. J. N. Merwin has been appointed Superintendent of the Toledo Division, at Toledo, O., and Mr. F. H. Keehan, Superintendent of the Cleveland Division, at Cleveland. Mr. F. E. Bissell, M. Am. Soc. C. E., has been appointed as Chief Engineer, with headquarters at Cleveland, O.

Mr. J. W. Cowper, of Mount Carmel, Ill., Engineer of Maintenance of Way on the Cleveland, Cincinnati, Chicago & St. Louis Ry., has been appointed to a similar position on the St. Louis Division, with headquarters at Mattoon, Ill. Mr. J. G. Shillinger, Supervisor of Track on the Cleveland-Indianapolis Division, has been appointed Engineer of Maintenance of Way on the Cairo Division, with headquarters at Mount Carmel, Ill.

OBITUARY.

Mr. Lorenzo Wiley, a civil engineer, of Covington, N. Y., died on Aug. 11, aged 82 years.

Mr. Robert Ramsey, Consulting Engineer and Superintendent of the Standard Coke Works at Mount Pleasant, Pa., died at East Kil Bride, Scotland, on Aug. 14, where he had gone for his health.

Mr. F. M. Towar, Chief of the U. S. engineering corps making a survey for a ship canal through the Des Plaines and Illinois Valleys, died suddenly of heart disease, on Aug. 17, near Joliet, Ill. He was 52 years of age.

Mr. Henry Dwight Ludden, City Engineer of Detroit, Mich., for the past 18 years, died at his home in that city on Aug. 17, aged 62 years. He first studied engineering in the office of J. B. Moulton, at that time Engineer of Docks, of St. Louis, Mo. He served during the Civil War as a Brigade Engineer, with the rank of Captain.

Mr. Ellis Bierbower, Superintendent of the Water Department of Omaha, Neb., died from the effects of an operation for appendicitis, on Aug. 18, at Buffalo, N. Y. Mr. Bierbower was born near Harrisburg, Pa., in 1860, and received his education at Iowa Wesleyan University.

General T. A. Davies died at Black Lake, near Ogdensburg, N. Y., on Aug. 19, aged about 90 years. He graduated from the U. S. Military Academy, at West Point, in 1829, but resigned his commission in 1831 to enter civil life. In 1837 he was employed as a civil engineer in the construction of the Croton Aqueduct. On the outbreak of the Civil War he was appointed Colonel of Volunteers, and in 1865 he received a commission as Brevet Major-General of Volunteers. General Davies invented and patented several railway devices which are now in use.

Prof. Robert Wilhelm Eberhard von Bunsen, the famous German chemist, died at Heidelberg on Aug. 16. Prof. Bunsen was born at Gottingen, Germany, March 31, 1811, his father having been professor of theology, Oriental langauges and literature in the university of that town. Young Bunsen took the course of chemistry and physics at Gottinger, and obtained the degree of Doctor of Philosophy in 1830. He continued his studies in Paris, Berlin and Vienna, and, in 1852, was made professor of chemistry at Heidelberg, a position he held until his death. In 1838 he began studying the chemical changes occurring in a blast-furnace, and he showed that at least 42% of the heat from the fuel was lost. He suggested collecting and storing the escaping combustible gas and using it for fuel, and the adoption of this idea greatly cheapened the production of iron. In the course of these investigations Bunsen devised the first accurate method of analyzing gas. In 1841 he invented the Bunsen burner; in 1857, with his assistant Kirchoff, he returned to his studies of the spectrum analysis, and they discovered the spectroscope and created three new branches of science, involving the use of this instrument in astronomy, optics and chemistry. By the spectrum lines he discovered the metals calsium and rubidium. The Bunsen pump for accelerating filtration is also his.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
Aug. 21-26. Annual meeting at Columbus, O. Secy., Prof. Frederick Bedell, Ithaca, N. Y. Local Secy., Prof. B. F. Thomas, Columbus, O.

NEW YORK STATE ELECTRICAL CONTRACTORS' ASSOCIATION.
Aug. 29. At Buffalo. Secy., J. C. Stearns, Buffalo, N. Y.

ENGINEERS' CLUB OF TORONTO.
Sept. 5. Secy., Willis Chipman, 103 Bay St., Toronto, Canada.

CENTRAL STATES WATER-WORKS ASSOCIATION.
Sept. 5 to 7. At Cincinnati. Secy., John Fisher, Hamilton, O.

NATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.
Sept. 5 to 7. Wilmington, Del.

ASSOCIATION OF EDISON ILLUMINATING COMPANIES.
Sept. 12. Annual meeting, Philadelphia. Secy., Wilson S. Howell, P. O. Box 114, Newark, N. J.

NEW YORK STATE STREET RAILWAY ASSOCIATION.
Sept. 12, 13. At Ithaca, N. Y. Secy., H. A. Robinson, Solicitor Metropolitan Railroad Co., New York city.

ROAD AND TRACK SUPPLY ASSOCIATION.
Sept. 12 to 14. Annual meeting at Detroit. Secy., W. J. Alexander Brown, 24 Park Place, New York.

MASTER CAR AND LOCOMOTIVE PAINTERS' ASSOCIATION.
Sept. 12 to 14. Annual meeting at Philadelphia. Secy., Robt. McKeown, Erie R. R.

ROADMASTERS' ASSOCIATION OF AMERICA.
Sept. 12 to 15. Annual meeting at Detroit. Secy., J. B. Dickson, C. & N. W. Ry., Sterling, Ill.

NEW ENGLAND WATER-WORKS ASSOCIATION.
Sept. 13 to 15. At Syracuse, N. Y. Secy., J. C. Whitney, Newton, Mass.

LEAGUE OF AMERICAN MUNICIPALITIES.
Sept. 19 to 22. At Syracuse, N. Y. Secy., B. F. Gilkison, New York city.

AMERICAN SOCIETY OF RAILWAY SUPERINTENDENTS.
Sept. 20. At Detroit. Secy., C. A. Hammond, Asbury Park, N. J.

CANADIAN ROADMASTERS' ASSOCIATION.
Sept. 20. Annual convention at Toronto, Ont. Secy., J. Drinkwater, C. P. Ry., Winchester, Ont., Canada.

AMERICAN INSTITUTE OF MINING ENGINEERS.
Sept. 25. Annual meeting, San Francisco, Cal. Secy., R. W. Raymond, 99 John St., New York city.

EASTERN MAINTENANCE OF WAY ASSOCIATION.
Sept. 26 to 29. Portland, Me. Secy., F. C. Stowell, B. & M. R. R., Ware, Mass.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS.
Oct. 3 to 5. At Toronto, Ont. Secy., David L. Fulton, Allegheny, Pa.

PENNSYLVANIA STREET RAILWAY ASSOCIATION.
Oct. 4, 5. At Lancaster, Pa. Secy., S. P. Light, Lebanon, Pa.

OHIO ELECTRIC LIGHT ASSOCIATION.
Oct. 10-12. At Cleveland, Ohio. Secy., Samuel Scovil, Cleveland, O.

AMERICAN RAILWAY ASSOCIATION.
Oct. 11. At New York. Secy., F. W. Allen, 24 Park Place, New York.

AMERICAN STREET RAILWAY ASSOCIATION.
Oct. 17. At Chicago. Secy., T. C. Penington, Chicago, Ill.

ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS.
Oct. 17. At Detroit. Secy., S. F. Patterson, B. & M. R. R., Concord, N. H.

AMERICAN GAS LIGHT ASSOCIATION.
Oct. 18 to 20. At New York. Secy., Alfred E. Forstall, 58 William St., New York.

EASTERN MAINTENANCE OF WAY ASSOCIATION.—The 17th annual convention will be held at the New Falmouth Hotel, Portland, Me., Sept. 26 to 29, 1899. After the regular routine business of the association the following questions will be taken up for discussion:

"How Shall the Right of Way be Maintained in a Tidy Manner with the Least Labor of Trackmen?" "The Most Efficient, Durable and Economical Form for Standard Snow Fence; also, Best Form of Wire Right-of-Way Fence, Giving Size of Wires, Etc." "What is the Proper Relation between Weight of Rail and Weight of Rolling Stock? Assuming a Proper Relation between Weight of Rail and Weight of Rolling Stock, What is the Most Economical Spacing of Ties?" "Under Existing Conditions Would it not be Economy for Railroad Companies in New England to Treat all Cross-ties Chemically?" "From a Maintenance of Way Standpoint, the Consideration of the Relative Merits of Stone Ballast or Gravel Sprinkled with Oil." Review of previous year's discussions.

Committees appointed by the Executive Committee will sumbit reports upon these questions. An unusually complete exhibit of track tools and equipment is promised.

Mr. E. E. Russell Tratman, Associate Editor of Engineering News, will read a paper on the evening of Sept. 27 on the "Proper Organization of the Maintenance of Way Forces."

F. C. Stowell, Secy., Ware, Mass.

ROADMASTERS' ASSOCIATION OF AMERICA.—The 17th annual convention of this association will be held at the Hotel Cadillac, Detroit, Mich., Sept. 12 to 14, 1899. Committees have been appointed to report on the following subjects:

"Advisability of Increasing the Length of Rails—Using Miter Joints, and Determine the Difference in Expansion of Light and Heavy Rails," V. T. Douglass, Chairman, C. & O. R. R., Richmond, Va.

"Track Joints—Results Obtained from Use of Various Devices," P. Rockwell, Chairman, R. M., M. K. & T. R. R., Sedalia, Mo.

"Standard Right of Way Fences," J. A. Prentice, Chairman, R. M., L. S. & M. S. R. R., Toledo, O.

Paper—"The Relation of Track to Traffic," F. R. Coates, R. M., N. Y., N. H. & H. R. R., Stamford, Conn.

"Embellishment of Station Grounds," M. Sullivan, Chairman, R. M., M. C. R. R., Niles, Mich.

Paper—"Standard vs. Compromise Cars, With Relation to Their Effect on Track," C. C. Dunn, Supt. A. C. L., Wilmington, N. C.

Committee to arrange for seventeenth annual convention, John Doyle, Chairman, Supt. of Track, C. & W. M. R. R., Grand Rapids, Mich.

J. B. Dickson, Sterling, Ill., Secy.

INTERNATIONAL ACETYLENE ASSOCIATION.—At the special meeting held in Chicago, Aug. 14 and 15, the sessions were principally given up to a general discussion covering technical and business points. A committee appointed at the July meeting to take up the situation in Illinois and Wisconsin, with a view to having carbide sold in those two states as freely as in all the other states, made a report which encouraged many members in the belief that a remedy for the present condition will soon be found and applied.

A resolution was adopted calling upon Congress to amend the patent laws upon the lines of the Canadian law, so that owners of U. S. patents shall be compelled to sell goods and supply the market at reasonable uniform prices without onerous conditions. A petition to the Electric-Gas Co., which owns the parent patents on electrical carbide processes, was prepared, and will be presented by the members of the association residing in New York city.

Mr. Raphael Herman read a paper on the necessity of dealing sharply with incompetent and fraudulent parties seeking to exploit this new industry, and Mr. I. B. Spencer discussed the question of the price of carbide.

The association is made up of active competitors, but its objects are solely educational and social, the newness of the industry making the maintenance of such an organization, for the comparison of notes and statement of experiences, very desirable. The President is Mr. George Landis Wilson, of Chicago; and the Secretary and Treasurer is Mr. J. B. Carroll, 84 Market St., Chicago.

NEW PUBLICATIONS.

PROCEEDINGS OF THE WESTERN RAILWAY CLUB, 1888-89.—Published by the Club. Secy., F. M. Whyte, 225 Dearborn St., Chicago. Cloth; 8vo.; pp. 416; illustrated.

This is the first year in which the club has issued its proceedings in book form, and the volume is made identical in size and style with those of the Master Car Builders' and Master Mechanics' associations. It contains a number of interesting and important papers and discussions, several of which have been presented in abstract in our columns. A set of the advertising pages of the monthly issue of the Proceedings is bound up at the end of the volume.

ON RAPID METHODS FOR THE ESTIMATION OF THE WEIGHT OF SUSPENDED MATTERS IN TURBID WATERS.—By Chas. L. Parmelee and Joseph W. Ellms. Reprinted from the Technology Quarterly (Boston), Vol. XII., No. 2, June, 1899. Paper; 7 × 10 ins.; pp. 145-64; tables. Address the authors (Mr. Parmelee, at 35 Wall St., New York city; Mr. Ellms at Cincinnati, O., care of Commissioners of Water-Works.)

This is an excellent review of the use of standard clay solutions, the photo-comparator, the wire method and the diaphanometer as substitutes for the gravimetric method of determining the weight of matters suspended in turbid waters. The study is founded on water from the Ohio River, before and after sedimentation. The observations were made while the authors were engaged under Mr. Geo. W. Fuller on the Cincinnati experiments on water purification.

GEOLOGICAL SURVEY OF NEW JERSEY.—Report of the State Geologist for the Year 1898. Boards; 6 × 9 ins.; pp. xxxii., 244, with appendix of 102 pp.; tables, 27 plates and 20 figures in the text. Address the Survey, New Brunswick, N. J.

The valuable studies of water supply carried on by the Survey for a number of years are continued in this volume. Mr. Lewis Woolman has some eighty pages on "Artesian Wells in New Jersey," in which records of a number of wells are given and the general subject discussed. Mr. C. C. Vermeule, Topographer of the Survey, has a valuable section on "Water Supply from Wells," written from an engineering standpoint; and also a section on "The Pine Belt of Southern New Jersey and Water Supply." The fire brick, clay and iron mining

industries of the state are treated by Mr. Geo. E. Jenkins, C. E. The appendix consists of "A Study of Forest Fires and Wood Production," by Gifford Pinchot.

INDIANA ENGINEERING SOCIETY.—Proceedings of the Nineteenth Annual Meeting, Held at Indianapolis, Jan. 24-6, 1899. Jas. B. Nelson, Secretary, Baldwin Block, Indianapolis. Paper; 6 x 9 ins.; pp. 122; illustrated. 50 cts.

Among the papers in this report are the following: "American vs. English Progress in Sewage Purification," by F. Herbert Snow, Assoc. M. Am. Soc. C. E., Boston, Mass., and Columbus, O.; "The Purification of Public Water Supplies," by John W. Hill, M. Am. Soc. C. E., Cincinnati, O.; "Methods of Testing Paving Brick," by Wm. Kendrick Hatt, Associate Professor of Applied Mechanics, Purdue University, Lafayette, Ind.; and "Street Paving in Indianapolis," by B. T. Jeup, City Engineer.

THE RAILWAY TRANSITION SPIRAL.—By Arthur N. Talbot, M. Am. Soc. C. E. Published by the author, Urbana, Ill. Paper; 4 x 6½ ins.; pp. 64; illustrated. Price, 35 cts.

The method of developing and laying out transition curves which is described in this pamphlet was worked out by Mr. Talbot some years ago, and described in "The Technograph" of the University of Illinois. The number containing the description is now out of print, and the author has therefore had the matter reprinted in pamphlet form, in a size suitable for insertion in an engineer's field book. It is believed that the principles may be readily comprehended by the average instrument man, and that the work is comparatively simple, while the curve is both flexible and accurate, being applicable to a wide range of conditions, and to either new or existing curves. The field work may be done either by the co-ordinate method or by the method of deflection angles.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

GRADE-CROSSING SIGNAL.—Parrish Signal Co., Jackson, Mich. Circular; 9 x 11 ins.

The Parrish signal engine is worked on the normally open circuit system, operated by the train passing over insulated rails or track connections.

PUMPING MACHINERY.—The Snider-Hughes Co., Cleveland, O. Paper; 9 x 6 ins.; pp. 112; illustrated.

This catalogue shows a full line of steam pumps, hydraulic machinery, air compressors and air lift plants. A number of useful tables are given.

PRIVATE LIGHT AND POWER.—Westinghouse, Church, Kerr & Co., New York city. Paper; 7 x 7 ins.; pp. 30; illustrated.

This is a handsomely printed pamphlet explaining the advantages of gas-engine driven electric lighting plants for hotels and country houses.

TRANVIAS DE CABLE DE ALAMBRE (CABLEWAYS).—The Trenton Iron Co., Trenton, N. J. Paper; 6 x 4 ins.; pp. 24; folding plates; illustrated.

This little pamphlet, printed in Spanish, is devoted to the Bleichert cableway system as used for mining work, and for handling coal, ore, asphalt, etc.

PAINT, VARNISHES AND JAPANS.—Buckeye Paint and Varnish Co., Toledo, O. Cloth; 6½ x 4 ins.; pp. 76.

This is a well-indexed price-list of paints, varnishes, japans and painters' supplies made or supplied by the company named, which has been in active existence since 1874.

PIPE JOINT CEMENT.—Gumbo Cement Co., 161 Lake St., Chicago, Ill. Paper; 6 x 3½ ins.; pp. 4.

This is a description of the uses of a mineral cement for pipe joints under pressure, for cylinder heads, and for general plumbing and gas fitting work. It is said to have no corrosive action and to allow of pipe joints being readily unscrewed.

ELECTRICAL FIXTURES AND SUPPLIES.—Western Electrical Supply Co., St. Louis, Mo. Paper; 14½ x 10½ ins.; pp. 44; illustrated.

This is a well-illustrated catalogue and price list of electrical chandeliers, wall fixtures and lamp shades manufactured by the above company, who also manufacture lighting, railway and general house supplies.

SOME RECENT INSTALLATIONS OF WORTHINGTON CONDENSING APPARATUS.—Henry R. Worthington, New York city. Paper; 6 x 9 ins.; pp. 32; illustrated.

This interesting catalogue is composed chiefly of reproductions of photographs and line drawings illustrating the subject named. In this way a number of condensers are shown, either singly or in relation to the plant with which they are connected.

LOGGING BY STEAM.—Lidgerwood Mfg. Co., 96 Liberty St., New York. Paper; 9¼ x 5¾ ins.; pp. 52; illustrated.

This pamphlet describes and illustrates the various methods of hauling and loading logs in the forest by means of cableways and carriers built under various patents. They are operated by hoisting or hauling engines mounted on cars or upon platforms alongside the loading track.

GUIDE TO BAR HARBOR, ME.—By W. H. Sherman. Issued by the Passenger Department, Maine Central R. R., Portland, Me. Paper; 8¼ x 5¾ ins.; pp. 104; illustrated.

This guide gives a description of the attractions and resources of the famous summer resorts of Bar Harbor and Mount Desert, and is illustrated by numerous views of the coast and inland scenery, and of the notable residences. We do not find any reference to the old rack railway up Green Mountain, and believe this line is no longer in operation.

SAW-MILL MACHINERY.—Wm. E. Hill & Co., Kalamazoo, Mich. Paper; 9⅝ x 6¾ ins.; pp. 68; illustrated.

The machinery includes steam "niggers" for handling and turning logs, steam kickers for unloading logs from the conveyor, which brings them up into the mill, log splitters, gang trippers, saw rigs, steam drag saws, etc., and a line of woodworking machines, such as gang edgers, shingle machines, and lath cutters and binders. There are also Hill's steam pump (with double piston and independent valve), deep-well pumps, etc.

FIREPROOFING MATERIAL.—Mackolite Fireproofing Co., Schiller Building, Chicago, Ill. Paper; 6 x 9 ins.; pp. 48; illustrated.

This material is made from ground gypsum and certain chemicals, and is used for partitions, floors, furring tile, and for protecting iron and wood structural work. It has been described in our columns, and this publication contains a number of half-tone engravings of buildings in which mackolite has been used for various purposes. There are also particulars of fire tests which have been made.

STEEL DUMP CARS.—Goodwin Car Co., 96 Fifth Ave., New York, N. Y. Paper; 12 x 9 ins.; pp. 32; illustrated.

The Goodwin combination side and dumping car has been described and illustrated in our columns, and this handsome publication consists mainly of excellent half-tone productions of photographs showing the cars in use, dumping by hand or compressed air. They are intended not only for ballasting and filling, but also for carrying, coal, ore, coke, grain, pig-iron, etc. The cars are 36 to 40 ft. in length, with a capacity of 30 to 80 cu. yds. (the latter with coke crates built up above the sides), or 60,000 to 125,000 lbs.

STURTEVANT ELECTRIC FANS.—B. F. Sturtevant Co., Boston, Mass. Paper; 8 x 10½ ins.; illustrated.

This pamphlet shows the several types of Sturtevant electric fans used for purposes of ventilation and as pressure blowers.

8-POLE MOTORS AND GENERATORS.—This is Bulletin I., published by the same company. It describes and illustrates eight-pole direct-current machines, which are designed for direct connection to engines or other machinery. The bearings are supported by spiders, making the machines very compact and neat in appearance.

STURTEVANT ENGINES.—Paper; 6½ x 9 ins.

Catalogue No. 103 of the above company describes its high-speed engines, designed for direct connection to dynamos.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened	Work.	Place.	See Eng. News.
Aug. 24.	Street improvements,	West New York, N.J.	Aug. 17
Aug. 24.	Fire escapes,	New York	Aug. 17
Aug. 24.	Electric plant,	Utica, N. Y.	Aug. 17
Aug. 24.	Gates to bridges,	Brooklyn, N. Y.	Aug. 17
Aug. 24.	Sewer bonds,	Wilkesbarre, Pa.	Aug. 17
Aug. 24.	Paving,	Vineland, N. J.	Aug. 17
Aug. 24.	Steam heating, etc.,	Minneapolis, Minn.	Aug. 17
Aug. 24.	Brick sewers,	Springfield, Mass.	Aug. 17
Aug. 24.	Water-works,	Sun Prairie, Wis.	Aug. 24
	Advertised, Engineering News, Aug. 10.		
Aug. 24.	Asphalt paving,	Detroit, Mich.	Aug. 24
Aug. 25.	Improvement bonds,	Milwaukee, Wis.	Aug. 24
Aug. 25.	Electric plant,	Summit, Miss.	Aug. 17
Aug. 25.	Railway work (18 miles),	Morenci, Ariz.	Aug. 17
	Advertised, Engineering News, Aug. 17.		
Aug. 25.	Street improvements,	Seneca, Ill.	Aug. 17
	Advertised, Engineering News, Aug. 17.		
Aug. 25.	Gravel road,	Terre Haute, Ind.	Aug. 17
Aug. 25.	Brick paving,	McConnellsville, O.	Aug. 3
Aug. 26.	Dredging,	Boston, Mass.	July 27
	Advertised, Eng. News, July 27 to Aug. 17.		
Aug. 26.	Dredging,	New York, N. Y.	July 27
	Advertised, Eng. News, July 27 to Aug. 17.		
Aug. 26.	Crane,	League Island Navy Yard, Pa.	July 27
Aug. 26.	Street improvements,	Nelsonville, O.	Aug. 3
	Advertised, Engineering News, Aug. 3.		
Aug. 26.	Dredging,	Milford Haven, Va.	Aug. 3
	Advertised, Engineering News, Aug. 3.		
Aug. 26.	Electric plant and lighting,	Evansville, Ind.	Aug. 10
Aug. 26.	School building,	Glen Ullin, N. Dak.	Aug. 10
Aug. 26.	Disappearing gun carriages,	Washington	Aug. 17
Aug. 26.	Macadamizing, Bowling Green,	O.	Aug. 17
Aug. 28.	Bridge superstructure,	Chicago, Ill.	Aug. 17
	Advertised, Eng. News, Aug. 17 and 24.		
Aug. 28.	Sewers,	Toledo, O.	Aug. 17
Aug. 28.	Sewer work,	Bristol, England	Aug. 17
Aug. 28.	Lock approaches,	Nashville, Tenn.	Aug. 17
	Advertised, Eng. News, Aug. 17 and 24.		
Aug. 28.	Street railway franchise,	Berkeley, Cal.	Aug. 17
Aug. 28.	Water gates, etc.,	St. Louis	Aug. 17
Aug. 28.	Sidewalks,	Norwalk, O.	Aug. 17
Aug. 28.	Artesian wells,	Toledo, O.	Aug. 17
Aug. 28.	School buildings (2),	New Orleans, La.	Aug. 17
Aug. 28.	Street improvements,	Green Spring, O.	Aug. 17
Aug. 28.	Electric plant,	Perth, Scotland	Aug. 10
Aug. 28.	Bridge,	Marietta, O.	Aug. 10
Aug. 28.	Bridge,	Shelbyville, Ind.	Aug. 10
Aug. 28.	Road,	Mobile, Ala.	Aug. 10
Aug. 28.	Improving water-works,	East Ashford, Eng.	Aug. 3
Aug. 28.	Macadamizing,	Richland Center, Wis.	Aug. 3
	Advertised, Engineering News, Aug. 3.		
Aug. 28.	U. S. Building,	Boise, Idaho	Aug. 3
Aug. 28.	Suction dredge,	Charleston, S. C.	July 20
	Advertised, Eng. News, July 20 to Aug. 10.		
Aug. 28.	Hydraulic dredge,	Grand Rapids, Mich.	July 20.
	Advertised, Eng. News, July 20 to Aug. 10.		
Aug. 28.	Bridge,	Marietta, O.	Aug. 24
Aug. 28.	Operating electric plant,	Chicago, Ill.	Aug. 24
Aug. 28.	Improvement bonds,	White Plains, N. Y.	Aug. 24
Aug. 28.	Brick pavement,	Geneva, N. Y.	Aug. 24
	Advertised, Engineering News, Aug. 24.		
Aug. 28.	Water-works,	Pratt City, Ala.	Aug. 24
Aug. 28.	School building,	Scranton, Pa.	Aug. 24
Aug. 28.	Sewage pumping station,	Sacramento, Cal.	Aug. 24
Aug. 29.	Bridge pier,	Oroville, Cal.	Aug. 24
Aug. 29.	Bridge,	Niantic, R. I.	Aug. 24
Aug. 29.	Cement,	Brooklyn, N. Y.	Aug. 24
Aug. 29.	Condenser tubes,	Norfolk, Va.	Aug. 24
Aug. 29.	Garbage crematory,	Louisville, Ky.	Aug. 24
Aug. 29.	Sewers and water-works,	Ft. Defiance, Ariz.	Aug. 24
Aug. 29.	Generating sets,	Portsmouth, N. H.	Aug. 24
Aug. 29.	Breakwater,	Gloucester Harbor, Mass.	Aug. 3
	Advertised, Eng. News, Aug. 3 to 31.		
Aug. 29.	Bridge,	Newark, N. J.	Aug. 10
	Advertised, Engineering News, Aug. 10.		
Aug. 29.	U. S. building work,	Buffalo, N. Y.	Aug. 10
Aug. 29.	Dormitories,	Dulce, N. Mex.	Aug. 10
Aug. 29.	Dredging,	Norfolk, Va.	Aug. 10
	Advertised, Eng. News, Aug. 10 and 17.		
Aug. 29.	School building,	Hurley, Wis.	Aug. 17
Aug. 29.	Bridge,	Birmingham, O.	Aug. 17
Aug. 29.	Water-works,	Renovo, Pa.	Aug. 17
	Advertised, Eng. News, Aug. 17 and 24.		
Aug. 30.	Locomotive,	Sophia, Bulgaria	Aug. 17
Aug. 30.	School building plans,	Seattle, Wash.	Aug. 17
Aug. 30.	Machinery,	Enfield, England	Aug. 17
Aug. 30.	Water-works,	Westbury, England	Aug. 17
Aug. 30.	Water-works,	Davenport, Wash.	Aug. 17
Aug. 30.	Ditch,	Marion, O.	Aug. 17
Aug. 30.	Bridge,	Indianapolis, Ind.	Aug. 17
Aug. 30.	U. S. building,	St. Paul, Minn.	Aug. 10
Aug. 30.	Paving brick,	Danville, Va.	Aug. 10
	Advertised, Eng. News, Aug. 10 to 24.		
Aug. 30.	Army buildings,	San Francisco, Cal.	Aug. 3
Aug. 30.	Court house,	Auburn, Neb.	Aug. 3
Aug. 30.	School building plans,	Seattle, Wash.	July 13
Aug. 30.	Sewers,	New York, N. Y.	Aug. 24
Aug. 30.	Heating apparatus,	Philadelphia, Pa.	Aug. 24
Aug. 30.	Jail building,	Harrisburg, Pa.	Aug. 24
Aug. 30.	Pipe sewers,	Mansfield, O.	Aug. 24
Aug. 31.	1-span truss,	Boston, Mass.	Aug. 24
	Advertised, Engineering News, Aug. 24.		
Aug. 31.	Town hall,	West Orange, N. J.	Aug. 24
Aug. 31.	School building addition,	Buffalo, N. Y.	Aug. 24
Aug. 31.	Water meters,	Nashville, Tenn.	Aug. 24
Aug. 31.	Railway (124 miles),	Vera Cruz, Mexico	July 6
Aug. 31.	Steel bridge,	Mexico, Mexico	July 6
Aug. 31.	Court house,	Ellaville, Ga.	July 20
Aug. 31.	College building,	College Station, Tex.	Aug. 3
Aug. 31.	Electric plant,	London, England	Aug. 3
Aug. 31.	School building,	Jersey City, N. J.	Aug. 10
Aug. 31.	Bridge,	Des Moines, Ia.	Aug. 10
	Advertised, Engineering News, Aug. 10.		
Aug. 31.	Postoffice building,	Newport, Ky.	Aug. 10
Aug. 31.	Water-works,	Crisfield, Md.	Aug. 17
	Advertised, Eng. News, Aug. 17 and 24.		
Aug. 31.	Reservoir and dam,	Lansingburg, N. Y.	Aug. 17
	Advertised, Eng. News, Aug. 17 and 24.		
Aug. 31.	Water mains,	Lansingburg, N. Y.	Aug. 17
	Advertised, Eng. News, Aug. 17 and 24.		
Sept. 1.	Infirmary building,	Erie, Pa.	Aug. 17
Sept. 1.	Building repairs,	New York, N. Y.	Aug. 17
Sept. 1.	Grading,	Paterson, N. J.	Aug. 17
Sept. 1.	Bayou Improvement,	New Orleans, La.	Aug. 17
Sept. 1.	Cleansing water supply,	Richmond, Mo.	Aug. 17
Sept. 1.	Water-works,	Baltimore, Md.	Aug. 10
	Advertised, Engineering News, Aug. 10.		
Sept. 1.	Paving,	Elizabeth, N. J.	Aug. 10
Sept. 1.	Bridge,	Caldwell, Idaho	Aug. 10
Sept. 1.	Water-works,	Rocky Mount, N. C.	Aug. 10
	Advertised, Eng. News, Aug. 10 and 17.		
Sept. 1.	Town hall plans,	Workington, England	Aug. 3
Sept. 1.	Electric lighting,	Williamsport, Pa.	Aug. 3
Sept. 1.	Canal work,	Columbia River, Ore.	July 20
	Advertised, Eng. News, July 20 to Aug. 3.		
Sept. 1.	Electric plant,	Malmo, Sweden	July 20
Sept. 1.	Pig lead,	Buffalo, N. Y.	Aug. 24
Sept. 1.	Canal work,	Portland, Ore.	Aug. 24
Sept. 1.	Canal work,	Albany, N. Y.	Aug. 24
	Advertised, Engineering News, Aug. 24.		
Sept. 1.	Hospital building,	Rockymount, N. C.	Aug. 24
Sept. 1.	Heating and plumbing,	Madison, Me.	Aug. 24
Sept. 1.	Asylum buildings,	Lincoln, Ill.	Aug. 24
Sept. 2.	Roadway,	Washington, D. C.	Aug. 24
	Advertised, Eng. News, Aug. 24 and 31.		
Sept. 2.	Brick paving,	Ashtabula, O.	Aug. 24
	Advertised, Eng. News, Aug. [illegible] and 31.		
Sept. 2.	Paving,	Evansville, Ind.	Aug. 24
Sept. 2.	Electric lighting,	Auburn, N. Y.	Aug. 24
	Advertised, Eng. News, Aug. 24 and 31.		
Sept. 2.	Hall building,	Lakota, N. Dak.	Aug. 3
Sept. 2.	Road improvement,	Cincinnati, O.	Aug. 10
Sept. 2.	Electric plant, etc.,	Portsmouth, N. H.	Aug. 10
Sept. 2.	Superstructure bridge,	Cincinnati, O.	Aug. 10
Sept. 2.	Workshop, etc.,	Philadelphia, Pa.	Aug. 17
Sept. 2.	Heating, plumbing, etc.,	Indianapolis, Ind.	Aug. 17
Sept. 2.	Excavation,	Cincinnati, O.	Aug. 17
	Advertised, Eng. News, Aug. 17 and 24.		
Sept. 2.	Levee work,	Claryville, Mo.	Aug. 17
Sept. 2.	Bridge superstructure,	Toronto, Ont.	Aug. 17
Sept. 2.	Paving,	Norfolk, Va.	Aug. 17
Sept. 4.	School building,	Humboldt, Minn.	Aug. 17
Sept. 4.	Electric lighting,	Columbia, Pa.	Aug. 17
Sept. 4.	Ditch,	Algona, Ia.	Aug. 17
Sept. 4.	Dock improvements,	Belfast, Ireland	Aug. 17
Sept. 4.	Paving,	Toledo, O.	Aug. 10
Sept. 4.	Tugboat,	Wilmington, N. C.	Aug. 10
	Advertised, Eng. News, Aug. 10 to 31.		
Sept. 4.	Library building,	West Point, N. Y.	Aug. 10
	Advertised, Eng. News, Aug. 10 to 31.		
Sept. 4.	Bridge,	New Ulm, Minn.	Aug. 10
Sept. 4.	Electric plant,	West Point, N. Y.	Aug. 10
	Advertised, Eng. News, Aug. 10 to 31.		
Sept. 4.	Sewers,	Sausalito, Cal.	Aug. 24
Sept. 4.	Ditch,	Algona, Ia.	Aug. 24
	Advertised, Engineering News, Aug. 24.		
Sept. 4.	Brick paving,	Wauseon, O.	Aug. 24
	Advertised, Engineering News, Aug. 24.		
Sept. 5.	Bridge,	Lodi, Cal.	Aug. 24
Sept. 5.	Water supply,	Oskaloosa, Ia.	Aug. 24
	Advertised, Engineering News, Aug. 24.		
Sept. 5.	Paving,	New Rochelle, N. Y.	Aug. 24
Sept. 5.	Sidewalk,	Gas City, Ind.	Aug. 24
Sept. 5.	Plans for sewer system,	Greenville, Miss.	Aug. 24
Sept. 5.	Bridges,	Omaha, Neb.	Aug. 24
Sept. 5.	Bridges,	Norristown, Pa.	Aug. 24
Sept. 5.	Bridge,	Hatfield, Pa.	Aug. 24
Sept. 5.	Pumping engine, etc.,	Kidderminster, Eng.	Aug. 3
Sept. 5.	Sewers (24 miles),	Jackson, Miss.	Aug. 10
	Advertised, Eng. News, Aug. 10 to 24.		
Sept. 5.	Road improvement,	Cincinnati, O.	Aug. 10
Sept. 5.	Macadam,	Plainfield, N. J.	Aug. 10
Sept. 5.	Rubble stone,	Boston, Mass.	Aug. 10
	Advertised, Eng. News, Aug. 10 to 24.		
Sept. 5.	Sewer,	Oshkosh, Wis.	Aug. 17
Sept. 5.	Sewerage tank,	Mount, Vernon, N. Y.	Aug. 17
	Advertised, Eng. News, Aug. 17 to 31.		
Sept. 5.	School building,	Phoenix, Ariz.	Aug. 17
Sept. 5.	Bridge,	Alexandria, S. Dak.	Aug. 17
Sept. 5.	Dredging,	San Francisco, Cal.	Aug. 17
Sept. 5.	Park entrance,	Newark, N. J.	Aug. 17
	Advertised, Eng. News, Aug. 17 to 24.		
Sept. 5.	Water-works and bonds,	Sardis, Miss.	Aug. 17
Sept. 5.	Electric plant,	St. Paris, O.	Aug. 17
Sept. 5.	Road improvements,	New Rochelle, N. Y.	Aug. 17
Sept. 5.	Bridge,	Avoca, Ky.	Aug. 17
Sept. 6.	Bridge,	Roseburg, Ore.	July 27
Sept. 6.	Bridge substructure,	Toronto, Ont.	Aug. 17
Sept. 6.	Macadamizing,	Roanoke, Va.	Aug. 24
Sept. 6.	Brick paving,	Birmingham, Ala.	Aug. 24
Sept. 6.	Gun forgings,	Washington, D. C.	Aug. 24
Sept. 6.	Overflow at reservoir,	New York, N. Y.	Aug. 24
Sept. 6.	Abutments,	Des Moines, Ia.	Aug. 24
Sept. 7.	Bridge,	Keswick, Cal.	Aug. 24
Sept. 7.	Bridge,	Redding, Cal.	Aug. 24
Sept. 7.	Hire of boat,	Sabine River, Tex.	Aug. 24
Sept. 7.	Hospital plans,	Patton, Cal.	Aug. 24
Sept. 7.	Dredging, etc.,	Union River, Me.	Aug. 10
	Advertised, Eng. News, Aug. 10 to 31.		
Sept. 7.	Heating, etc.,	Toledo, O.	Aug. 17
Sept. 8.	River bank improvement,	Cincinnati, O.	Aug. 17
Sept. 8.	Paving,	Veedersburg, Ind.	Aug. 17
Sept. 9.	Brick paving,	Janesville, Wis.	Aug. 24
Sept. 9.	Street improvements,	Defiance, O.	Aug. 24
Sept. 9.	Street improvements,	Youngstown, O.	Aug. 24
Sept. 9.	Paving,	Evansville, Ind.	Aug. 24
Sept. 9.	Electric machinery,	East Ham, England	Aug. 24

Sept. 11. Breakwater, Oswego, N. Y. .....Aug. 17
Advertised, Eng. News, Aug. 17 to Sept. 7.
Sept. 11. Steamboat, Wilmington, N. C. .....Aug. 10
Advertised, Eng. News, Aug. 10 to 31.
Sept. 12. Breakwater, New York, N. Y. .....Aug. 17
Advertised, Eng. News, Aug. 17 to Sept. 7.
Sept. 12. Electric lighting, Cynthiana, Ky. .....Aug. 24
Sept. 12. Dredging, San Francisco, Cal. .....Aug. 24
Sept. 12. Heating, Charleston, Ill. .....Aug. 24
Sept. 12. Heating, plumbing, etc., San Antonio, Tex. Aug. 24
Sept. 12. Electric plant, Hackney, England. .....Aug. 24
Sept. 13. Street improvements, Lima, O. .....Aug. 24
Sept. 13. School building, Emmetsburg, Ia. .....Aug. 24
Sept. 13. Railway, Woodford, England. .....Aug. 24
Sept. 13. Street improvements, Hoboken, N. J. .....Aug. 17
Sept. 13. Lock and dam, Mobile, Ala. .....Aug. 17
Advertised, Eng. News, Aug. 17 to Sept. 7.
Sept. 14. Capitol annex, Charleston, W. Va. .....Aug. 17
Sept. 14. River improvements, Richmond, Va. .....Aug. 17
Advertised, Eng. News, Aug. 17 to Sept. 7.
Sept. 14. Water-works, Berryville, Va. .....Aug. 24
Advertised, Eng. News, Aug. 24 and 31.
Sept. 14. Water-works, etc., Pyramid Lake, Nev. ..Aug. 24
Sept. 14. Street improvements, Greenville, O. .....Aug. 24
Sept. 14. Dormitory buildings (3), Walker, Minn. ..Aug. 24
Sept. 15. Reformatory building, Bedford, N. Y. .....Aug. 24
Advertised, Eng. News, Aug. 24 to Sept. 7.
Sept. 15. Sidewalks, Toronto, O. .....Aug. 24
Sept. 15. Dredging, Newport, R. I. .....Aug. 17
Advertised, Eng. News, Aug. 17 to Sept. 7.
Sept. 16. Dredging, Urbana Creek, Va. .....Aug. 17
Advertised, Eng. News, Aug. 17 to Sept. 7.
Sept. 16. Wharf, Boston, Mass. .....Aug. 24
Sept. 16. School building, Cleveland, O. .....Aug. 24
Sept. 16. Bridge, Towes Ferry, Va. .....Aug. 24
Sept. 17. Wharf, Ft. Washington, Md. .....Aug. 24
Advertised, Eng. News, Aug. 24 to Sept. 14.
Sept. 18. Paving, Danville, Va. .....Aug. 24
Advertised, Eng. News, Aug. 24 to Sept. 7.
Sept. 18. Paving, Toledo, O. .....Aug. 24
Sept. 18. Dredging, Cape Porpoise, Me. .....Aug. 24
Advertised, Eng. News, Aug. 24 to Sept. 14.
Sept. 20. River improvement, Galveston, Tex. .....Aug. 24
Advertised, Eng. News, Aug. 24 to Sept. 14.
Sept. 20. Superstructure to bridge, Chicago, Ill. ....Aug. 3
Advertised, Engineering News, Aug. 3.
Sept. 21. Hire of dredge, Mermenton River, La. ....Aug. 24
Sept. 21. River improvements, New Orleans, La. ....Aug. 24
Sept. 28. Machinery, New Orleans, La. .....Aug. 24
Sept. 28. Heating, etc., St. Paul, Minn. .....Aug. 24
Oct. 1. Electric street railway, Moscow, Russia. .Mar. 9
Oct. 12. Railway, Pretoria, Transvaal. .....Aug. 24
Nov. 1. Water-works, Nicolaiev, Russia. .....June 15
Nov. 1. Protected cruisers, Washington, D. C. ....July 13
Nov. 3. Garbage crematory, Sydney, N. So. Wales. Aug. 17
Nov. 28. Quays, etc., Alexandria, Egypt. .....Aug. 10
No date. Plans for jail, Norfolk, Va. .....July 27
Advertised, Eng. News, July 27 to Aug. 17.
No date. Water pumps, etc., Middletown, Del. ....Aug. 10
Advertised, Engineering News, Aug. 10.
" .Structural steel, New York, N. Y. .....Aug. 17
Advertised, Engineering News, Aug. 17.
" .Light plant, Kota-Radja, Sumatra. .....Aug. 17
" .Sewers and water-works, Burnham, Pa. ..Aug. 17
" .Power plant, Washington, D. C. .....Aug. 17
No date. Bridge, Media, Pa. .....Aug. 24
" .Hospital plans, New Orleans, La. .....Aug. 24
" .Timber flume, Hudson, Wis. .....Aug. 24
Advertised, Engineering News, Aug. 24.
" .Water and electric plants, Tuscola, Ill. ..Aug. 24

RAILWAYS.

ANN ARBOR.—O. D. Richards, Ch. Engr., Toledo, O., informs us that this company is building 2½ miles of new line near Churchill, Mich., to improve the grade; the old line will be taken up. The work is being done by the company direct and is well under way.

ATCHISON, TOPEKA & SANTA FE.—Reports state that this company will spend between $150,000 and $300,000 within the next three months in improvements to its terminal facilities. It is intended to remodel the yards at Argentine, Kan., so as to provide trackage for 1,000 additional cars. J. Dun, Ch. Engr., Topeka, Kan.

AUSTRALIA.—The Mount Garnet, Chillagoe & Bedford Co., Ltd., has made application for a concession, which has been favorably considered, for the construction of a line from Mareeba to Mount Garnet, via the Atherton scrub lands and Evelyn plains, Queensland, Australia. The company asks only for the necessary land, which is estimated to be worth $1,000,000.

BRAINERD & NORTHERN MINNESOTA.—This company proposes to extend its line 12 miles northeast from Bemidji, Minn., either this year or next. O. O. Winter, Gen. Mgr.; W. C. Smith, Locating Engr., Brainerd, Minn.

CANADA.—William McKenzie, Toronto, Ont., is reported to have closed contracts for constructing a railway in Ontario, in five-mile sections, with John C. O'Neill, Kemptville, Ont.; John R. Turnbull, Winnipeg, Manitoba; McGillivray & Gleeson, Hugh Mann and Luke Madigan, aggregating 55 miles, to be finished before winter sets in. John R. Turnbull also received a contract for building all bridges and trestles between Stanley and Fort Williams, Ont.

COLORADO, TEXAS & MEXICAN.—Reports state that this proposed line has been surveyed from Llano to Haskell, Tex., about 200 miles. The route as projected is from Denver to Eagle Pass., Tex., via Haskell, Abilene and Llano. John M. Blackburn, Ch. Engr., Abilene, Tex.

DELAWARE, LACKAWANNA & WESTERN.—It is announced that this company will lay a third track on its Morris & Essex division, between Hoboken and Summit, N. J. It is also intended to gradually abolish the grade crossings in the principal cities through which the road runs. J. Archbald, Ch. Engr., Scranton, Pa.

DENVER, OKLAHOMA & GULF.—This company was incorporated in Oklahoma, Aug. 14, with a capital stock of $8,000,000, to build a line from a point in Ellis county, Kan., through Oklahoma and Indian Territory to Grayson, Cooke or Montague county, Tex., a distance of about 400 miles. W. C. Oakley and S. B. McConnell, Chicago, Ill., and Henry Hudson, Guthrie, Okla., are incorporators.

DETROIT RIVER TERMINAL.—Surveys have been started for the route of this proposed railway from the River Rouge to Wyandotte, Mich. The company was incorporated July 8, with a capital stock of $500,000, to construct about 16 miles of line. W. H. Ashwell, Engr., Detroit, Mich.

EMPIRE STEEL & IRON.—This company, which operates the Victoria furnace at Goshen, Va., has just bought a tract of mineral property nearby which will necessitate the construction of over two miles of standard-gage railway in order to develop the mines.

ENGLAND.—Bids are asked by the Great Eastern Ry. Co. until Sept. 13 for constructing a railway from Woodford to Ilford, County of Essex. W. H. Peppercorne, Secy., Liverpool St. Station, London, England.

FLINT & PERE MARQUETTE.—This company is making substantial improvements on the main line between Ludington, Mich., and Toledo, O., and Detroit, in order to facilitate the extensive through traffic. Grades are being leveled and the track placed in good condition. A grade between Clio and Mt. Morris, Mich., formerly 46 ft., has been reduced to 19 ft. With this change the greatest grade between Saginaw and Flint, Mich., is 22 ft.; and a 200-ft. bridge will be abandoned and a culvert put in. Another grade of 37 ft. just below Holly has been reduced to 20 ft. On the western division a grade of 32 ft. west of Baldwin has been reduced to 25 ft., according to reports. G. M. Brown, Ch. Engr., Saginaw, Mich.

GREEN RIVER VALLEY.—Incorporated in Tennessee Aug. 11, with $40,000 capital stock, to construct a railway from Nashville up the Green River Valley in Kentucky. Charles Le Roi, W. W. Redman and Ford Reddick are incorporators.

GREEN RIVER VALLEY.—Incorporated in Tennessee, with a capital stock of $40,000, to construct a line from Nashville, Tenn., through the Green River Valley into Southeastern Kentucky. C. H. Williams and T. N. Sneed, of Nashville, are incorporators.

GUAYAQUIL & QUITO.—Edward Morley, Guayaquil, Ecuador, informs us that he desires to have manufacturers of all kinds of railway material send him their catalogues, giving full particulars and export prices of the material they make or have for sale. This new railway is being built by the Ecuador Development Co., 33 Wall St., New York, from Puente de Chimbo to Quito, Ecuador, about 231 miles as an extension of the Ferrocarril del Sur. Wm. F. Shunk, Ch. Engr.; W. D. Buckner, Asst. Ch. Engr.

INDIA.—Surveys are well advanced and construction will soon begin on the following extensions of existing railways in British India: The Burdwan-Horwah Chord line, 57 miles; the Gya-Katraagarh, 102 miles, and the Jerria coal line, 14 miles; by the East Indian Ry.; E. H. Stone, Ch. Engr., Calcutta, India. The Muxoodpur-Majeegatee, 18 miles, and the Chandipur-Taki line, 39 miles, by the Bengal Central Ry.; E. Staples, Ch. Engr., Calcutta. The Achnera-Jaunpore, 34 miles, and the Ballia-Ghazipore line, 34 miles, by the Bengal & Northwestern Ry.; A. Izat, Ch. Engr., Gorakpur. The Nanjangode-Erode, 110 miles, and the Mutupett-Avadyarkovie line, 51 miles, by the South Indian Ry.; W. H. Spaulding, Ch. Engr., Trichinopoly. The Kanu-Kabwet-Thabletkyin line, 32 miles, by the Burmah Ry.; F. R. Bagley, Ch. Engr., Rangoon. The Tirupatur-Krishnagiri line, 25 miles, by the Madras Ry.; H. C. West, Ch. Engr., Madras. The Akhara Bhairab Bazaar, 19 miles; the Tilagaon-Sylhet, 38 miles, and the Hajiganj-Shatnol line, 25 miles, by the Assam-Bengal Ry.; R. S. J. Routh, Ch. Engr., Haflong. The Bara-Aimere-Marwar, 274 miles; the Kohat-Bannu, 245 miles, and the Ranaghat-Ganges-Katihar line, 287 miles, to be built by the Director of Railway Construction, Simla, India. The Naihati-Ballygunj line, 40 miles, by the Eastern Bengal State System; J. A. Anderson, Ch. Engr., Sealdah. The Berhampore-Russulkonda line, 50 miles, by the East Coast State Ry.; B. Baxter, Ch. Engr., Waltair. This makes a total of 1,504 miles of line to be built; and surveys for 1,069 miles are under consideration. The total length of railways open for traffic on March 31 was 22,491 miles. In addition to these standard roads there is in contemplation the construction of numerous light roads throughout the provinces, some of which are to be operated by electricity generated by water-power.

INDIANAPOLIS SOUTHERN.—Incorporated in Indiana, Aug. 16, with a capital stock of $200,000, to build a line through Johnson, Morgan, Warrick and Pike counties to Evansville, Ind. John E. McGettigan, David M. Parry and James Wilson, all of Indianapolis, are incorporators.

INDIANA.—B. J. T. Jeup, Cy. Engr., of Indianapolis, Ind., has submitted a report and plans for track elevation in that city. The proposed improvement would cover about six miles of track, and the Union station.

KEATING & SMETHPORT.—Incorporated in Pennsylvania, with $10,000 capital stock, to construct one mile of steam railway between Smethport, Pa., and Keating township. C. A. Backer, Pres., Melrose, Mass.; Robert Osgood, Salem, Mass., and F. D. Gallup, Smethport, are incorporators.

KOREA.—The Korean Domestic Railway Materials Supply Co. has received a concession from the Korean government for the construction of a road from Seoul to Wiju, on the Yalu River.

LINVILLE RIVER.—Incorporated in North Carolina, with $60,000 capital stock, to construct a line from Cranberry to Pineola, N. C., about 12 miles. Isaac T. Mann., Bramwell, W. Va.; W. L. Ritter, Welch, W. Va., and J. B. Perry, Bramwell, are incorporators.

MINNESOTA & SOUTH DAKOTA.—Incorporated in Minnesota, Aug. 15, with a capital stock of $50,000, to build a line from the Winona & St. Peter R. R. at Tyler, Minn., to Lake Hendricks, 26 miles. A. Scott, St. Paul, Minn., and J. B. Redfield, Chicago, are incorporators.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—Surveys are being made, according to reports, for an extension of this system to the property of the Bon Air Land & Lumber Co., near Sparta, Tenn. H. McDonald, Ch. Engr., Nashville, Tenn.

RALEIGH & EASTERN.—This company was incorporated in North Carolina Aug. 14, with $100,000 capital stock, to build from Raleigh to Wakefield, N. C., about 20 miles.

RIO GRANDE WESTERN.—J. R. Murdock, Charleston, Utah, is reported to have been awarded the contract for about 9 miles of grading on this line between Heber and Charleston.

SAN ANTONIO & BROWNSVILLE.—H. M. Aubrey, Pres., San Antonio, Tex., informs us that bids will probably be asked in November for constructing this new line from San Antonio to Brownsville, Tex., 275 miles. Surveys have been made and part of the capital for construction secured. There will be an easy grade and only three important bridges on the route.

SYRIA-OTTOMAN.—J. R. Pilling, Effingham House, Arundel St., Strand, London, and H. Hills, Thames Iron Works, London, are promoters of this new standard-gage line to be built from Haifa to Damascus, 142 miles, with a proposed extension from Damascus to Bagdad and the Persian Gulf. Active operations were commenced last spring on the division between Haifa and the Jordan, and work is to be completed within two years as far as Damascus. Sir Douglas Fox, Ch. Engr., 28 Victoria St., London; Dr. G. Schumacher, Supt. of Wks., U. S. Consul at Haifa, Syria.

TRANSVAAL.—Consul Macrum, Pretoria, reports that bids will be received Oct. 12 for constructing a railway from Pretoria to Rustenburg and from Belfast to Lydenburg, the date of opening bids for the former piece of work having been extended so as to allow foreign contractors time to bid.

STREET AND ELECTRIC RAILWAYS.

FOXBORO, MASS.—The Foxboro, Wrentham & Lake Pearl St. Ry. Co. is being organized with $35,000 capital stock to operate about four miles of street railway. Elbridge J. Whitaker, Wrentham; Chas. E. Bibber, Malden, Mass., and H. A. Burgett, Brookline, Mass., are interested.

LEXINGTON, MASS.—Wm. H. McCue, Newton, Mass., has been awarded the contract for constructing the Lexington & Boston St. Ry. Work has begun on the Waltham end of the route. Horace Parker, Pres. of Newton & Boston Electric Ry., will have charge of the work.

NEW BEDFORD, MASS.—The Berlin Iron Bridge Co., East Berlin, Conn., has the contract for erecting the new car barn for the New Bedford, Middleboro & Brockton Ry. Co. In connection with the car barn there will be an engine and boiler-room of the same construction.

NORTHAMPTON, MASS.—Butts & Crosby, Archs., 49 Pearl St., Hartford, Conn., inform us that the Northampton-Amherst St. R. R. Co.'s plant will probably not be built until next season. E. C. Crosby, Pres., Brattleboro, Vt.

STOUGHTON, MASS.—Work upon the construction of the Stoughton & Randolph St. Ry. is being pushed, and it is thought by the management that cars will be running by Sept. 15.

WEST SPRINGFIELD, MASS.—It is reported that a company is being organized to construct a passenger and freight electric railway between Copake, N. Y., and the Boston & Albany, at West Springfield, 67 miles. Water power will be used to generate the electricity. It is proposed to build a branch providing a connection between the Berkshires and Copake, and hence to New York.

COXSACKIE, N. Y.—The railroad commissioners have approved of an increase of the capital stock of the Coxsackie & Greenville Traction Co. from $200,000 to $350,000, to provide funds for construction purposes.

MIDDLETOWN, N.Y.—The property of the Middletown-Goshen Traction Co. will be sold at Middletown Sept. 22 by order of the court. Wm. B. Royce, Receiver.

CAMDEN, N. J.—The Scott-Janney Electric Co., capitalized at $30,000,000, was incorporated Aug. 14 to build and operate electric railways. Frank R. Hansell, Wm. F. Eidell and G. H. B. Martin, Camden, are incorporators.

CENTRALIA, PA.—It is reported that contracts will probably soon be let for constructing the proposed electric railway from Centralia to Ashland, as most of the building materials have been bought, with the exception of copper wire.

COPLAY, PA.—Hugh E. Crilly, Allentown, Pa., is reported to have commenced work on the proposed Coplay, Egypt & Ironton Electric Ry. It will be about three miles in length.

ERIE, PA.—Contractor Marks has begun work on the construction of the new brick and stone car barns and the power house for the Erie & Cambridge Springs Ry.; estimated cost of two buildings, $24,585. The contract for constructing the road is held by the International Construction Co., and it is expected to complete the grading by Sept. 15. The ties have been distributed.

FREEMANSBURG, PA.—The council has passed an ordinance over the veto of Chief Burgess Bachman giving the South Bethlehem & Freemansburg Traction Co. a franchise in this town.

SOUTH BETHLEHEM, PA.—The South Bethlehem & Saucon St. Ry. Co. was incorporated Aug. 18, with a capital stock of $30,000, to construct a line between South Bethlehem and Saucon, Northampton county. Andrew L. Cope, Pres., and C. P. Hoffman, South Bethlehem; W. H. Miller, Emaus, Pa., are incorporators.

ANTIETAM, MD.—C. W. Lynch, Pres. of Hagerstown (Md.) Ry. Co., is reported to be promoting a project to construct a trolley system from Hagerstown to Antietam battlefield, via Boonsboro, Keedysville and Sharpsburg, about 16 miles.

WASHINGTON, D. C.—The Washington, Sandy Spring & Gettysburg Ry. Co., capitalized at $100,000, filed its incorporation papers in Annapolis, Md., Aug. 11. It is proposed to build from Harney to Silver Springs, Md. Geo. H. Harris and John B. Larner, Washington, D. C., are incorporators.

LYNCHBURG, VA.—E. G. Frye, Arch., Lynchburg, confirms the report in our last issue that the New England Construction Co., Waterbury, Conn., has been awarded the contract for erecting a new power house for the Lynchburg St. Ry. & Light Co.

MANCHESTER, VA.—R. J. Simmons, Richmond, Va., is reported to have been awarded the contract for constructing the proposed Manchester & Petersburg Electric Ry.

CHARLESTON, S. C.—Contracts will soon be let, according to reports, for erecting a new power house for the Charleston Consolidated Ry., Gas & Electric Co. Plans have been prepared for a plant which will cost about $150,000, including machinery. J. S. Lawrence, Pres.

FITZGERALD, GA.—Correspondence from manufacturers and dealers in electric street railway materials is solicited by C. O. Pollard, Cy. Clk.

CHATTANOOGA, TENN.—S. W. Divine, Pres. of Chattanooga Rapid Transit Co., is stated to have announced that he will at once begin the erection of an elevated street railway from this city to the foot of Lookout Mountain.——It is reported that Chicago capitalists have secured a 30-day option on the purchase of the Chattanooga Electric St. Ry., the two inclines to the summit of Lookout Mountain and the broad-gage road, extending several miles along the summit of the mountain.

CHILLICOTHE, O.—We are informed that the Chillicothe, Mount Sterling & Columbus Electric R. R. Co. has secured the greater part of the right of way from Chillicothe to Mount Sterling. A. W. Jones, Engr., Chillicothe, is now with a corps locating the line, which is not to follow highways where a grade of less than 80 ft. a mile cannot be had. The line starts at Chillicothe, running through Andersonville, Clarksburg, New Holland and Mount Sterling to Columbus.

TOLEDO, O.—G. A. Dawson, H. S. Landis and others are reported to be interested in the construction of an elevated electric railway from this city to Bay Point. It is proposed to use the Beacher patent monorail system.

ANDERSON, IND.—Reports state that the Union Traction Co. closed a contract Aug. 15 for $195,000 worth of steel rails to be used on its Indianapolis & Muncie division. Chas. L. Henry, Mgr.

BENTON HARBOR, MICH.—The council has granted a franchise to Wm. C. Hovey to construct an electric railway which is to run from here to South Haven.

PONTIAC, MICH.—Reports from Detroit state that Lennane Bros. have been awarded the contract for laying a double track of grooved rails on Saginaw St., Pontiac, for the Detroit & Northwestern Ry.

AURORA, ILL.—The Aurora, Yorkville & Morris Ry. Co. has been organized to construct a line from Aurora down the Fox River Valley to Montgomery and Oswego. The Aurora St. Ry. Co. is reported to have the contract for building the line as far as Montgomery. H. H. Evans, Pres.; U. P. Hord, Vice-Pres., both of Aurora.

SYCAMORE, ILL.—The Sycamore & De Kalb Electric Ry. Co. has been organized, with $10,000 capital stock, by E. P. Magill, Sycamore; W. H. Scott, De Kalb, and others.

OSHKOSH, WIS.—J. Meredith Davies, Austin, Ill., of the Winnembago Construction Co., informs us that his company has the contract for constructing the proposed Oshkosh & Stevens Point Ry. from Poysippi to Stevens Point, via Pine River, Wild Rose and Almond, 72 miles. Surveys have been completed, the right of way obtained and capital for construction secured, and it is expected to complete work this fall. W. H. Fisher, Pres.; L. F. Woodbury, Ch. Engr., both of St. Paul, Minn.

SEATTLE, WASH.—Henry Bucey, Gen. Mgr., Seattle-Tacoma Ry., 201 Collins Block, Seattle, informs us that this proposed electric line will run from Seattle to Tacoma by the shortest practical route, a distance of 33 miles. The line has been definitely located, and a franchise granted the company to enter Seattle and Tacoma. Negotiations are now pending looking to the sale of bonds. The road will be a standard gage, using a 70-lb. steel rail. John Collins, Pres.; Frank Bartlett, Ch. Engr., both of Seattle.

PASADENA, CAL.—It is announced that the Pasadena & Mount Wilson Ry., known as the Mount Lowe Ry., will soon be extended from its present terminus to the summit of Mount Lowe. This is an electric railway reaching an elevation of 5,000 ft.; when it is completed the line will be eleven miles long and will reach an altitude of 6,100 ft. J. S. Torrance, Recvr. and Mgr., Echo Mountain, Cal.

BINGHAM, UTAH.—The Valley R. R. Co. has been incorporated with $200,000 capital stock to build an electric line from the suburbs of Salt Lake City to Bingham, 14 miles. James Campbell, Pres.; Edmund Wilkes, Vice-Pres., both of Salt Lake City.

LONDON, ENGLAND.—Reports state that the highways committee of the London county council, acting upon the report of Prof. Alex. B. W. Kennedy, 19 Little Queen St., Westminster, S. W., London, has recommended that the estimate submitted by the finance committee for £10,000 ($50,000), be approved, and that the council authorize the highways committee to spend that sum for the preparation of plans and estimates and other preliminary expenses in connection with the reconstruction, for the experimental use of underground systems of electrical traction, of the part of the London county council tramways between Westminster Bridge and Tooting.——Reports state that an American syndicate headed by Tom L. Johnson will apply to the local government of London, about Oct. 1, for a franchise to construct a sub-trolley system which will connect London and Brighton. Surveys are being made.

PASING, GERMANY.—The city councils of Pasing and Laim have been granted a concession by the general government for the construction of an electric railway from Pasing to Munich, work to be commenced forthwith.

BRUNN, AUSTRIA.—Moriz Hirschkorn, 11 Mayerhofgasse, Vienna, has obtained a concession for the construction of an electric railway from Brunn to Eichhorn-Vitischka, operations to be commenced within six months on forfeiture of the right.

OSAKA, JAPAN.—A company under the title of the Settsu Electric Tramway Co. has been organized in Osaka for the purpose of constructing a tramway of 22 miles between Osaka and Kobe. At a meeting this month the company is to be renamed the Han-Shin Electric Tramway Co. Mr. Misaki, Ch. Engr., will visit the United States to enquire into the various systems of operation.

PEKIN, CHINA.—The first electric railway in China was opened June 24, running from the Pekin station at Machiapu to the south city gate. It is intended to extend the line into the city by breaking a gate through the walls. The road was projected and constructed by Siemens & Halske, 100 Broadway, New York.

ELECTRIC LIGHT AND POWER.

NORTH WEBSTER, MASS.—Lightning struck the carding and electric department of the Slater Mfg. Co. Aug. 22. The damage is estimated at $5,000.

MIDDLETOWN, CONN.—Thos. C. Perkins, Hartford, Conn., is reported to have completed plans for a plant for the Essex Light & Power Co. The equipment of the plant will include engine of 200-HP. with alternating dynamo, capacity for 2,500 16-c. p. incandescent lamps; boiler and other steam equipment. The cost of the plant will be about $30,000. Bids will be asked for about the last of September. Pres., F. R. Gallagher; Vice-Pres., Thos. C. Perkins; Secy., Chas. R. Marvin; Treas., L. L. Worcester.

AUBURN, N. Y.—Bids are asked by the lighting committee until Sept. 2 for electric lighting, as stated in our advertising columns.

LYONS, N. Y.—The council is reported to have extended the time for completing the plant, for which Jacob Straus was granted a franchise in the spring. Estimated cost, $20,000. Work will be begun before Nov. 1.

PITTSBURG, PA.—It is stated that the Pressed Steel Car Co. proposes to build an electric plant at its Woods Run works.

MILTON, DEL.—Jas. P. Morrison, Chas. P. Taylor and Chas. W. Cullen have been granted a franchise for a plant, work on which will be begun inside of six months.

ALBANY, GA.—The Power Co., of Albany, has applied for a charter. It is proposed to build a plant on the Kinchafoonee Creek to develop about 1,000 HP.

AUGUSTA, GA.—Nisbet Wingfield, Comr. Pub. Wks., has submitted his report for a municipal plant to cost about $101,000.

DOUGLAS, GA.—J. J. Walker, Mayor, writes us that it has been decided to put in a plant and water-works. Population, 1,000.

MILLEDGEVILLE, GA.—It is proposed to build a plant at Furman's Shoals. About $400,000 will be spent on the plant and building factories. J. F. Wilson, Milledgeville, and the American Pipe Mfg. Co., 112 North Broad St., Philadelphia, are reported as interested.

ROSWELL, GA.—The Roswell Electric St. Ry., Light & Power Co. is reported to have been granted a franchise.

CULLMAN, ALA.—We are informed that Moore & McCrary, Atlanta, Ga., have been awarded the contract for the plant at $4,900, without engine. This company was also awarded the contract for the water-works. J. A. Holmboe, Engr., Louisville, Ky.

CYNTHIANA, KY.—Bids are asked until Sept. 12 for furnishing 30 or more 1,200 or 2,000-c. p. arc and 40 or more 25-c. p. incandescent lights for five or ten years. The lamps are to be on poles 45 ft. high. L. S. Williams, Cy. Clk.

HOPKINSVILLE, KY.—T. Y. Littlehale, Lessee and Mgr., writes us that owing to adverse action by the council in refusing to ratify the sale of the franchise, which it had granted, the gas company was debarred from proceeding further in the matter of erecting a plant. The subject will again be brought up when the personnel of the council is changed. The next city lighting contract will be let one year hence.

FOSTORIA, O.—John Parsh, Sandusky, O., it is reported, is preparing plans for private plants in this place and in Fremont.

FREDERICKTOWN, O.—The council is considering a proposition to grant a franchise for a plant.

MARION, IND.—The Marion Electric Co., it is stated, has let contracts for about $50,000 worth of new machinery, and it will begin at once the work on the proposed improvements.

ESCANABA, MICH.—O'Keefe & Orbison, Appleton, Wis., are reported as preparing plans for a plant at Flat Rock, to cost about $60,000.

MONROE, MICH.—Reports state that the following propositions were submitted Aug. 12 for a plant: The Western Electric Co., Chicago, $30,077; the Fort Wayne Electric Co., $19,500, exclusive of grounds and subject to the approval of its manager; the Monroe Electric Light Co., which is now furnishing the city light, $19,500. This company agrees to add eight new arc lights, in addition to the 77 now in use, and replace the old dynamo now in use with one of 2,000 c. p.

SAULT STE. MARIE, MICH.—Press reports state that the Michigan-Lake Superior Power Co. proposes to make improvements to its plants. The company proposes to build a plant at this point sufficient to develop 60,000 HP. The company has already acquired a large amount of real estate bordering on the banks of the river near the rapids.

CASEY, ILL.—The council is reported to have asked for bids for constructing a plant and water-works, to cost about $30,000.

CHICAGO, ILL.—Bids are asked until Aug. 28 for operating the electric generating light and power, pumping, elevator, heating and ventilating plant in the Chicago public library building, and furnishing same, except generating plant. W. B. Wickersham, Secy.——Shepley, Rutan & Coolidge have let contracts for a new plant to be built in Englewood for the Commonwealth Electric Light Co., now a branch of the Chicago Edison Co. The power-house is to be erected in 56th St., near Wallace, and will be as nearly fireproof as it can be made, with exterior of pressed brick and stone and interior of structural iron and steel. Construction is estimated at $100,000, and the equipment will cost as much again.

TUSCOLA, ILL.—J. H. Culver, Pres. Culver Electric Co., writes us that bids for constructing the plant to cost $15,000 will be received at once. The company has also the franchise for water-works, to cost about $30,000, and has the contracts for furnishing light and water. Contracts for machinery have not yet been let.

ELROY, WIS.—The council has rejected bids for a plant, and, it is stated, will do the work itself.

DILLON, MONT.—This place has voted to issue $75,000 in bonds to purchase the plant and build works.

GLENDIVE, MONT.—The plant at this place is reported to have been destroyed by fire, causing a loss of $6,000.

NEWPORT, ARK.—T. J. Wilson, Mayor, writes us that the council has appointed Segmond Wolf, A. D. Bailey and J. M. Green, a commission to investigate the question of an electric plant. Surveys will soon be made.

KANSAS CITY, MO.—Alderman H. M. Beardsley is preparing an ordinance authorizing the city to make a new contract for lighting for ten years at $75 a light for 1,200 arc lights. At the expiration of the ten years the plant is to become the property of the city. Estimated cost of plant $250,000.

ODESSA, MO.—We are informed that an informal vote recently taken resulted 8 to 1 in favor of a plant to cost $10,000. About Sept. 12 an election will be held to vote on the question of issuing the necessary bonds. Bids will be wanted about the end of September. R. B. Stichter, Louisiana, Mo., has been engaged to prepare plans, etc., and all communications should be addressed to him.

CUERO, TEX.—The council will soon be asked to issue additional bonds for a city plant.

DENVER, COLO.—It is probable that the supervisors will soon take active steps looking towards the construction of a city plant, to cost $264,000. Address Supervisor Mitchell, Mayor Johnson or City Electrician Sayer.

SUMPTER, ORE.—We are informed that bids for the plant for the Eastern Oregon Power Co. will be asked in the fall. Estimated cost, $75,000. C. H. Leadbetter, Engr., Sumpter.

LEHI, UTAH.—Christian Garff, of the Utah County Light & Power Co., writes us that bids will be wanted this month for constructing a water-power plant to light this place, American Fork and Pleasant Grove. There will be 10,000 16-c. p. incandescent lights; estimated cost, $30,000.

DUDLEY, ENGLAND.—The lighting committee has recommended that the following contracts be let for the proposed plant: Babcock & Wilcox, for boilers and fittings, $10,085; the Westinghouse Electric & Mfg. Co., machinery, etc., $30,845; Callender's Cable & Construction Co., $35,750, and Whittaker & Co., $27,530 for iron building, stack and engine beds. Other smaller contracts are to be awarded. An additional loan of $165,000 for other improvements in Dudley is to be obtained. The local government board has recommended such step to be taken at an early date.

EAST HAM, ENGLAND.—Bids are asked until Sept. 9 for certain machinery for a plant for this district. W. C. Ullman, Engr., White Post Lane, East Ham.

HACKNEY, LONDON, ENGLAND.—Bids are asked until Sept. 12 for four sets of direct-connected steam dynamos, either high or low speed. Geo. Grocott, Vestry Clk.; Robert Hammond, Engr., 64 Victoria St., Westminster.

BRAILA, ROUMANIA.—It is stated that the municipality will soon ask for bids for erecting a plant. Population, 30,000.

EGYPT.—Press reports state that a plan is under consideration by the British Government for the lighting of the pyramids by electricity and the installation of an electric power transmission plant of 25,000 HP. The plant involves the erection of a power-generating plant at the Assouan Falls, on the River Nile, and its transmission 100 miles through the cotton-growing district, where, it is thought, the supply of cheap power from this source will permit the building of cotton factories. Part of the scheme contemplates the lighting, from this source, of the interior corridors of the pyramids, and also the operating of pumping machinery for irrigating large areas of desert land along the Nile. Address the Commercial Department, Foreign Office, London, England.

NEW COMPANIES.—Harrisburg Light, Heat & Power Co., Harrisburg, Pa.; $2,000, with $200 paid in; H. W. Stone, W. O. Bishop, Harry C. Ross, Harrisburg.

Meherrin Power Co., Emporia, Va.; $100,000; W. S. Goodwin, G. B. Wood, Emporia; H. H. Massie.

Eastern Oregon Power Co., Baker City, Ore.; $100,000; to erect and operate electric power plants for mining, milling and other purposes and will operate electric railways; F. Baillie, A. Geyser, J. T. English.

Catskill Mountain Electric Co., Middletown, N. Y.; $100,000; J. M. Blish, Fleischmanns, N. Y.; G. H. Lasben.

Tuxedo Electric Light Co., Tuxedo, N. Y.; $80,000; Richmond Talbot, Chas. S. Patterson, Tuxedo Park.

The Shreve Electric Light & Power Co., Shreve, O.; $8,000; E. K. Gardner, H. J. Good.

Commerce Electric Light Co., Commerce, Tex.; $10,000; T. U. Thompson, L. W. Rutland, J. D. Jernigan.

Porterville Light & Power Co., Porterville, Cal.; $10,000; W. H. Hammond, A. G. Wishon, A. D. Wilson.

Lakewood Water, Light & Power Co., Lakewood, N. J.; $150,000; Frederick H. Green, Wm. H. Blair, Carroll Ph. Bassett, Summit, N. J.

Elwood Electric Light Co., Elwood, Ind.; $80,000; Chester Taylor, Wm. A. De Hority, Elmer C. Heck.

North Georgia Electric Light & Power Co., Dahlonega, Ga.; $25,000; J. W. Adams, Chattanooga, Tenn.; R. C. Thomson, Delaware, O.; H. D. Ingersoll, Dahlonega.

Portsmouth Gas & Electric Co., Portsmouth, Va.; $25,000; W. T. Reed, Pres.; Jos. L. Billisoly, Secy.

St. Petersburg Electric Light & Power Co., St. Petersburg, Fla.; $13,000; F. A. Davis, Geo. B. Creveling.

Glens Falls Gas & Electric Light Co., Glens Falls, N. Y., consolidation of old companies; $250,000; Frank S. Butterworth, Walter F. Peacock, Lewis G. Herckenrath.

Northwestern Power & Transportation Co., Duluth, Minn.; $500,000, with $10,000 paid in; Murphy & Blatz, 103 Front St.; Francis A. Cokefair, Crescent Ave., both of Plainfield, N. J.

Tunkhannock Electric Co., Tunkhannock, Pa.; $15,000, with $1,500 paid in; S. W. Eysenbach, Treas., Tunkhannock; T. B. Russell, Wilkes-Barre, Pa.

BRIDGES.

EXETER, N. H.—Local papers state that the bridge over the Hampton River, made necessary by the new boulevard, will be of steel, and will be 3,000 ft. long and 20 ft. wide; estimated cost, $20,000.

BOSTON, MASS.—Bids are asked until Aug. 31 for constructing a truss with one span of 89 ft. for the water-works conduit, as stated in our advertising columns. Louis E. Hawes, 73 Tremont St.

CAMBRIDGE, MASS.—The Cambridge bridge commission has received permission to change the lines of the Charles River on both sides so that suitable abutments may be built for the new bridge.

NIANTIC, R. I.—Bids are asked by the town clerk, Westerly, until Aug. 29, for constructing a steel bridge across the Pawcatuck River.

FOLLAND, CONN.—At a town meeting on Aug. 14 it was voted to build two iron bridges to replace the present Babcock and Jackson bridges over the Willimantic River.

BINGHAMTON, N. Y.—S. E. Monroe, Cy. Engr., writes us that the proposed Chenango St. viaduct will not be built this year; he also states that the railroad commission has the project under advisement at present.

SYRACUSE, N. Y.—The Berlin Iron Bridge Co., of East Berlin, Conn., has received a contract for building the Syracuse Construction Co.'s bridge over the D., L. & W. R. R. at this place.

NEW BRUNSWICK, N. J.—The Board of Freeholders of Middlesex county awarded on Aug. 17 the contract for constructing an iron bridge over South River to the Wrought Iron Bridge Co., Canton, O., at $7,522.

HATFIELD, PA.—Bids are asked until Sept. 5 for a stone highway bridge and one of steel to span the west branch of Neshaming Creek. Chas. M. Reed, Audr.

HONESDALE, PA.—Bids will soon be asked by J. E. Brucher for the Narrowsburg Bridge Co. for a 262-ft. iron bridge, with foundations of concrete and granite, according to reports.

MEDIA, PA.—Bids are asked by the county commissioners for constructing a bridge across Ridley St. on the road leading from Media to Black Horse.

NORRISTOWN, PA.—Bids are asked by the county commissioners until Sept. 5 for erecting a stone arch bridge over the west branch of Neshaming Creek in Hatfield, for constructing a stone arch bridge across Swamp Creek in Douglass and for building a stone arch bridge over Tacony Creek on Greenwood Ave. in Wyncote. John H. Dager, Engr.; D. N. Hitner, Clk.

PHILADELPHIA, PA.—The A. & P. Roberts Co. has received a contract for constructing two double-track I-beam spans over the Sandy Lick Creek, at Du Bois; also a contract from the Chesapeake & Ohio R. R. Co. for erecting a number of plate-girder bridges required in the reconstruction of its road, and a contract for all the iron work used in the construction of the company's new terminals at Richmond, Va.

PITTSBURG, PA.—The contract for the Consolidated Traction Co.'s new bridge over Allegheny River at Sharpsburg has been let to the Keystone Bridge Co.; estimated cost, $250,000.

PITTSBURG, PA.—An election will be held on Sept. 19 to vote on the question of expending $700,000 for the construction and repair of bridges. Wm. J. Diehl, Mayor.

TOWE'S FERRY, VA.—Bids are asked until Sept. 16 for constructing a bridge across New River. The structure will include three spans of 147 ft. each, and 200-ft. wooden or steel approaches; width, 16 ft. in the clear; piers of stone masonry or of steel cylinders filled with concrete. J. R. K. Bell, Chn. Comrs., Pulaski City.

MARIETTA, O.—Bids are asked until Aug. 28 for constructing a bridge across Muskingum River. Haslett & Hanlon, Wheeling, W. Va., Engrs. in charge.

INDIANAPOLIS, IND.—Plans have been prepared by City Engineer Jeup for the following new bridges: Meriden St. Bridge, stone; Melan arch structure at Illinois St., and at Northwestern Ave. a plate girder bridge. Bids will be asked soon, according to statement made by City Controller Johnson.

CHICAGO, ILL.—It is stated that a new rolling lift bridge is to be built across the river at Taylors St. by the Terminal Transfer Co.——Local papers report that the Fort Wayne R. R. Co. will construct a new bridge across the Calumet River to replace the present structure.——The following bids were received by Maj. W. L. Marshall, U. S. Engrs., Aug. 9, for furnishing steel and cast iron for aqueducts Nos. 1, 2 and 3, Illinois and Mississippi Canal:

Bidder.	No. 1.	No. 2.	No. 3.
Toledo Bridge Co., Toledo	$17,450	$17,550	$10,000
Chas. L. Strobel, Chicago	17,017	17,261	9,873
Carnegie Steel Co., Pittsburg	15,606	15,795	9,072

MILWAUKEE, WIS.—According to the report made by the committee on highways and bridges on Aug. 15 the cost of the new viaduct over the Menominee Valley at Grand Ave. will be about $140,000. The plans provide for a viaduct 60 ft. wide and 1,925 ft. long.

COPPACK, IA.—The contract for constructing a bridge across the Skunk River has been let to the George E. King Bridge Co., of Des Moines.

DES MOINES, IA.—Bids are asked by the board of public works until Sept. 6 for constructing two abutments for a bridge over the Des Moines River at East Sixth St.

DUBUQUE, IA.—E. R. Shankland, Chicago, Ill., is making a new survey for the proposed bridge across the Mississippi at Eagle Point. The structure will be 1,460 ft. long, with a 900-ft. approach on the Iowa side, and on the Wisconsin shore one of 1,800 ft. About $15,000 has already been subscribed for the work.

ST. PAUL, MINN.—The following bids have been received by City Engineer Claussen for the superstructure of the Wabasha St. bridge: Pennsylvania Steel Co., $85,404; Chicago Bridge & Iron Co., $85,584; W. A. Lee, $76,341; J. G. Wagner Co., $74,813; Toledo Bridge Co., $81,184; Gillett-Herzog Mfg. Co., $84,148; C. L. Strobel, $79,039; King Bridge Co., $77,694; Wrought Iron Bridge Co., $81,395.

OMAHA, NEB.—Bids are asked until Sept. 5 for constructing 12 iron bridges in Harlan county. Sam. L. Roberts, County Clk.

KANSAS CITY, MO.—The Kansas City, Pittsburg & Gulf Ry. Co. has let the contract for its new steel bridge across the Red River to A. J. Trulock, Leavenworth, at $200,000.

KANSAS CITY, MO.—Walton Holmes, Pres. Metropolitan Street Ry. Co., is quoted as stating that the plans for the company's new viaduct at Eighth St. have been completed and that the work will be started soon.

BRYAN, TEX.—The Indiana Bridge Co., Muncie, Ind., has received the contract for reconstructing the iron bridge across the Little Brazos River.

VANCOUVER, WASH.—Bids are asked until Aug. 26 for constructing the following bridges: Truss bridge across Salmon Creek; bent bridge across south branch of Whipple Creek; truss bridge over Cedar Creek; truss bridge over Cedar Creek at Etna. A. J. Cook, Audr.

KESWICK, CAL.—Bids are asked by the supervisors until Sept. 7 for constructing a bridge across the Sacramento River, below Spring Creek.

LODI, CAL.—Bids are asked by the town clerk until Sept. 5 for constructing the Hunt bridge; estimated cost, $5,000.

OROVILLE, CAL.—Bids are asked until Aug. 29 for constructing a stone and concrete pier to the Oroville bridge. H. T. Batchelder, Clk.

REDDING, CAL.—Bids are asked until Sept. 7 for constructing a three-span steel bridge across the Sacramento River at Keswick. Address Supervisor Baltzell.

SAN FRANCISCO, CAL.—Maj. W. H. Heuer, U. S. Engrs., Room 41 Flood Bldg., received on Aug. 9 the following bids for steel piers for a highway draw span across tidal canal at Oakland Harbor: Darby Laydon, $33,700; Dundon Bridge & Construction Co., $21,854; California Bridge & Construction Co., $24,747; Healy, Tibbitts & Co., $29,993; H. Krusi, $28,350; Pacific Construction Co., $28,-997; Thomas Thomson, $31,480; Cotton Bros., $32,900. All of San Francisco, except Cotton Bros., of Oakland.

STOCKTON, CAL.—The following bids were received Aug. 8 for the Clements Bridge: Cotton Bros., $6,600; Darby Laydon, $6,887; Clark & Henery, $5,647 (accepted); Tumelty & Co., $6,307.

MEXICO, MEX.—Waddell & Hedrick, Kansas City, Mo., and the Bowling Green Bldg., New York, N. Y., are to prepare plans for the bridges which the Interoceanic Ry. and the Hidalgo & Northeastern R. R. are to use. They will secure similar work for two other Mexican roads, and they will recommend exactly the material and style to be used. Considerable iron work will be required in these various Mexican bridges.

TOKIO, JAPAN.—The contract for the Kagoshima steel bridge has been awarded to the Phoenix Bridge Co., of Phoenixville, Pa. The bridge will be 100 ft. high and about 1,000 ft. long.

RANGITAKA, NEW ZEALAND.—A contract for constructing an iron bridge has been awarded by the municipal council of this place to the Berlin Iron Bridge Co., East Berlin, Conn. The company is also figuring on several bridges for the projected Formosa Ry., one of which will be 2,000 ft. long and will cost about $400,000, according to reports.

BUILDINGS.

MADISON, ME.—Bids are asked until Sept. 1 for heating and plumbing the Odd Fellows' Block now being erected in this village. W. R. Miller, Arch., Lewiston, Me.

TOGUS, ME.—Bids are asked until Aug. 28 for furnishing repair supplies for the Eastern branch of the National Home for D. V. S. A. L. Smith, Treas.

BOSTON, MASS.—The Fuller & Warren Warming & Ventilating Co., 147 Lake St., Chicago, has been awarded the contract for installing a heating apparatus in the new school building at Quincy and Perth Sts.

NAHANT, MASS.—The following bids were received by the U. S. life-saving service, Washington, D. C., Aug. 16, for constructing a life-saving station at Nahant: J. T. Wilson, Nahant, $8,868, Dec. 1; W. H. Glover Co., Rockland, Me., $8,490, Dec. 25; Henry A. Tolbert, Barnegat, N. J., $7,400, Dec. 31; John W. Burrowes, Portland, Me., $7,945, Dec. 20; Chas. W. Newcomb, Malden, Mass., $10,-834, Feb. 1; C. Blanchard, Lynn, Mass., $9,268, Nov. 15; J. A. Healy, Lynn, Mass., $10,497, Feb. 1; J. S. Randall, Portland, Me., $8,000, Jan. 1; David J. McKim, Boston, Mass., $7,890, Dec. 1; John I. Stewart & Co., Boston, $9,903, Dec. 1; Morrison Bros., Dorchester, Mass., $8,100, Nov. 15; Charles E. Currier, Newton, Mass., $10,-975, Dec. 1; Wm. T. Eaton, Boston, $10,450, Nov. 20.

NEWPORT, R. I.—We are informed that the following bids were received July 26 for erecting a hospital building at Fort Adams: Maj. H. P. Young, Q. M., U. S. Vols., 209 Thames St., Newport: Jos. J. Churchyard, 648 Clinton St., Buffalo, N. Y. (accepted), $17,550; Angus MacDonald, 17 Otis St., Boston, $25,790; Jas. M. Gillies, Newport, R. I., $23,000; Hastings & Kyte, South Framingham, Mass., $20,310; John Kenney, Blackstone, Mass., $21,550; Michael F. Murphy, Newport, R. I., $22,833; Wm. T. Eaton, Boston, $25,666; Meads & Reynolds, Washington, D. C., $21,369; David J. McKim, Boston, $23,000. Angus MacDonald was awarded the plumbing contract at $1,300; Barr & Creelman, 16 Minerva Place, Rochester, N. Y., was awarded the gas-piping contract at $105, and the heating contract at $2,597.

BEDFORD, N. Y.—Bids are asked until Sept. 15 for grading, excavation, road making, masonry work, cut granite, addition to boiler house, machinery and steam connections in same, retaining walls, etc., at the New York State Reformatory for Women at Bedford, as stated in our advertising columns. Address James Wood, Pres. Bd. of Mgrs.

BUFFALO, N. Y.—Bids are asked until Aug. 31 for erecting a 1-story addition to the school building on Main St., near Lafayette Ave. R. G. Parsons, Secy. Bd.

ELLIS ISLAND, N. Y. H.—The following bids were received by the supervising architect, Washington, D. C., Aug. 16, for the ornamental iron work of the main buildings at the U. S. immigrant station, Ellis Isuand, New York Harbor: Hecla Iron Works, New York, $38,000, time, 6 months; Brown-Ketcham Iron Works, New York, $41,607, 5 months; Snead & Co. Iron Works, Louisville, Ky., $43,250, 9 months.

NEW YORK, N. Y.—Plans have been filed by Marcus Hoffberg, 23 East 111th St., for two 7-story brick and stone flat buildings at Lenox Ave. and 112th St., to cost $170,000. G. F. Pelham, Arch., 503 5th av.; by Chas. R. Saul, 149 Columbus Ave., for a 6-story brick warehouse on 90th St., near Amsterdam Ave., to cost $40,000. Moore & Landsiedel, Archs., 2861 3d Ave.; by A. A. Boletsky and H. Hellman, 965 Columbus Ave., for two 6-story brick flat buildings on Monroe St., near Market St., to cost $60,000. M. Bernstein, Arch., 245 Broadway; by W. W. & T. M. Hall, for a 5-story brick dwelling at 987 5th Ave., to cost $90,000. Welch, Smith & Provot, Archs., 11 East 42d St.; by Beth Israel Hospital, 206 East Broadway, for a 6-story brick hospital building, 100 × 78 ft., at Jefferson and Cherry Sts., to cost $100,000. Fiemer & Koehler, Archs.; by A. L. Ferguson and G. F. Neres, for four 4-story brick flat buildings at 150th St. and Beach Ave., to cost $60,000. Albert E. Davis, Arch., 2558 3d Ave.

WEST ORANGE, N. J.—Bids are asked until Aug. 31 for erecting a town hall at this place. John Reid, Chn. Township Bldg. Com.

HARRISBURG, PA.—Bids are asked by the commissioners of Dauphin county until Aug. 30 for the reconstruction of the county jail. Plans have been revised so as to bring the cost down from $110,000, the original estimate, to $75,000. F. J. Osterling, Arch., Times Bldg., Pittsburg, Pa.

BEAVER, PA.—Andrew Carnegie has given $50,000 to the Young Ladies' Club of Beaver for the erection and equipment of a public library building.

PHILADELPHIA, PA.—Bids are asked by the supervising architect, Washington, D. C., until Aug. 30, for the low-temperature hot-water heating apparatus for the U. S. building and for the U. S. Marine Hospital Service building, both in this city.——Plans have been prepared for a new public school building to be erected at 31st St. and Glenwood Ave., to cost $70,000. Joseph L. Anshutz, Arch. Bd. of Education.——A permit has been granted for the erection of a new 5-story mill and office building to be erected at Indiana Ave. and A St., for Hoyle, Harris & Kaye; estimated cost, $42,000. Hales & Ballinger, Archs., 1200 Chestnut St.; John W. Fritzinger, Contractor.

SCRANTON, PA.—Bids are asked until Aug. 28 for erecting a 12-room public school building on Orchard St. E. D. Fellows, Secy. Bd. of Control; Jas. H. Feeney, Arch., 421 Lackawanna Ave.

YORK, PA.—Harris P. Rose, Boston, representing George W. Meredith & Co., Philadelphia, is said to be negotiating for the erection of a large storage building in this city, to cost about $80,000.

BALTIMORE, MD.—Jackson C. Gott, Baltimore, has been chosen to prepare plans for a new 8-story office and warehouse building to be erected on Liberty St., near Fayette St., for the Kohler Mfg. Co., manufacturer of drugs; estimated cost, $80,000.

PARKERSBURG, W. VA.—Bids are asked until Aug. 25 for erecting a 10-room school building in this city. S. S. Hazen, Pres. Bd. of Education; William H. Patton, Arch., 310½ Market St.

ROCKYMOUNT, N. C.—Bids are asked until Sept. 1 for constructing a hospital at South Rocky Mount, on the Wilmington & Weldon R. R. Address Dr. G. G. Thomas, Supt. and Ch. Surgeon, Atlantic Coast Line Relief Dept., Wilmington, N. C.

AUGUSTA, GA.—C. L. Rounds, Augusta, was awarded the contract, Aug. 15, for erecting the proposed Montgomery building, at $28,000. A. C. Bruce, Arch., Atlanta.

NEW ORLEANS, LA.—Plans and specifications are asked for a home for incurables, to be erected here at a cost of about $30,000. Emma K. Walsh, Chn. Bldg. Com., 1808 Peters Ave.

CINCINNATI, O.—The following bids were received by the supervising architect, Washington, D. C., Aug. 15, for alterations and repairs to the heating and ventilating apparatus of the U. S. building at Cincinnati: James McWilliams Co., Louisville, Ky., $15,470, 75 days; M. H. Crane Estate, Cincinnati, $15,276.93, 75 days; E. Keeler Co., Williamsport, Pa., $15,900, 60 days; John H. McCowan Co., Cincinnati, $15,700, 8 wks.

CLEVELAND, O.—Andrew Dahl & Son, American Trust Building, Cleveland, have been awarded the contracts for erecting the East High School building at about $40,000 and the Western Reserve building, in this city at about $175,000.

CLEVELAND, O.—Bids are asked by the board of education, 190 Euclid Ave., until Sept. 16, for erecting the proposed Lincoln high school building at Scranton and Castle Aves.

FINDLAY, O.—Bids are being received for erecting a 5-story brick and stone theater building, 73 × 182 ft., at this place, to cost about $60,000. Geo. O. Garnsey, Arch., Adams Express Bldg.

PORTSMOUTH, O.—The Portsmouth Hotel Co. is said to contemplate the erection of a new 5-story hotel building at this place, to cost $60,000. H. A. Linthwaite, Arch., 18 North High St., Columbus, O.

CHARLEVOIX, MICH.—The following bids were received by the U. S. life-saving service, Washington, D. C., Aug. 16, for constructing a life-saving station at this place: Alexander Cameron, Charlevoix, $4,624, Dec. 1; Fred. R. Spear, Rockland, Me., $6,630, Jan. 1; Charles Hoertz, Grand Rapids, Mich., $4,079, Dec. 30; Gearing Bros. Co., Ltd., Detroit, Mich., $6,632, Dec. 16.

GRAND MARAIS, MICH.—The following bids were received by the life-saving service, Aug. 16, for constructing a life-saving station at this place: Fred. R. Spear, Rockland, Me., $6,780, time, Jan. 1; Gearing Bros. Co., Detroit, Mich., $7,284, Dec. 23; H. E. Kaumeier & Co., Port Huron, Mich., $7,950, 5 mos.

CHAMPAIGN, ILL.—Valentine Jobst, Peoria, Ill., was awarded the contract, Aug. 16, to construct the agricultural building at the University of Illinois, at $117,193. The steamfitting contract went to Thomas & Smith, Chicago, at $14,786, and the plumbing contract to Baumgarten Bros., Chicago, at $11,366. The legislature appropriated $150,000 for this building, which will be the largest of its kind in the world. It must be completed Sept. 1, 1900.

CHARLESTON, ILL.—Bids are asked by the supervisors of Coles county, until Sept. 12, for heating the county court house. W. R. Patton, Chn.; C. W. Rapp, Arch., 100 Washington St., Chicago.

CHICAGO, ILL.—N. P. Cummings has been granted a permit for erecting a 4-story apartment building, 150 × 110 ft., at 51st St. and Grand Boulevard, to cost about $90,000. H. L. Newhouse, Arch.——G. W. Walker has been granted a permit to erect an elevator, 85 × 140 ft., at 96th St. and Calumet River, to cost $150,000.

LINCOLN, ILL.—Bids are asked until Sept. 1 for erecting two groups of semi-detached buildings for the Illinois Asylum for Feeble-Minded Children. Address C. R. Gittings, Pres. Bd. of Trustees, Lincoln; Robert B. Watson, Arch., State Arch., Dexter Bldg., Chicago, Ill.

DES MOINES, IA.—Charles Weitz & Son are reported to have received the contract for erecting the 6-story fireproof annex building for the Savery Hotel, at $30,250. Liebbe, Nourse & Rasmussen, Archs.

EMMETSBURG, IA.—Bids are asked by the board of education until Sept. 13 for erecting a 12-room school building in this city. J. S. Atkinson, Secy.; W. R. Parsons & Sons Co., Des Moines, Ia.

MINNEAPOLIS, MINN.—Bids are asked by the court house and city hall commission until Aug. 24 for fireproofing, steamfitting and plumbing for the new building, and until Sept. 5 for other work.——The following bids were received by the supervising architect, Washington, D. C., Aug. 15, for alterations to the heating and ventilating apparatus of the U. S. building in this city: Moore Heating Co., Minneapolis, $2,972; T. M. Maguire, Minneapolis, $2,592.

ST. PAUL, MINN.—Bids are asked by the supervising architect, Washington, D. C., until Sept. 28, for alterations, etc., in the low-pressure and exhaust steam-heating and mechanical ventilating apparatus in the U. S. building in this city.——Plans have been prepared by H. Kretz & Co., according to reports, for a new orphanage building, 128 × 150 ft., for the St. Joseph's Orphan Society, to cost $50,000.

WALKER, MINN.—Bids are asked by the office of Indian affairs, Washington, D. C., until Sept. 14, for erecting three frame dormitories for the Leech Lake schools. Capt. W. A. Mercer, Acting U. S. Indian Agent, Walker.

LINCOLN, NEB.—G. H. Ellsworth, Supt. of Construction, informs us that the contract for erecting a 2-story brick and stone experiment station building for the University of Nebraska has been let to Harry Stephens, Lincoln. Bids have not yet been asked for plumbing and heating of the same.

NEW ROCKFORD, N. DAK.—M. J. Moran, Grand Forks, N. Dak., has been awarded the contract for erecting the new Eddy county court house, at $16,795; work to be completed Dec. 15.

INDEPENDENCE, KAN.—A new 4-story brick Masonic temple building, 50 × 130 ft., will soon be erected in this city; estimated cost, $20,000. W. H. Hadley, Arch., Topeka, Kan.

KANSAS CITY, MO.—The contract for erecting the east wing of the Manual Training School building is reported to have been awarded to Hollinger & Mitchell, 221 Main St., at $35,525.

SAN ANTONIO, TEX.—Bids are asked until Sept. 12 for the hot-water heating, hydraulic elevator and plumbing for the San Antonio Loan & Trust Co.'s building in this city. Alfred Giles, Arch., San Antonio.

COLORADO SPRINGS, COLO.—Plans have been submitted to the commissioners of El Paso county by A. J. Smith, Arch., for a new county court house to measure 100 × 160 ft., and to cost about $200,000.

VICTOR, COLO.—A fire in this city Aug. 21 destroyed most of the business buildings, causing an estimated loss of $2,000,000.

MARTINEZ, CAL.—The supervisors of Contra Costa county have decided to erect a new court house at this place, to cost about $100,000. Bids will soon be received.

PATTON, CAL.—Plans and specifications are asked until Sept. 7 for erecting a ward building for the Southern California State Hospital, to cost about $35,000. M. B. Campbell, Medical Supt.

SANTA ANA, CAL.—A special election will be held in Orange county in September to vote upon the issuance of bonds for erecting a new court house.

AGUA CALIENTES, MEX.—Press reports state that plans have just been completed for a hospital to be built here for the Mexican Central R. R., at a total cost of about $125,000. The buildings will be two stories high and of brick and stone.

WATER-WORKS.

BARRE, VT.—Burt H. Wells, Cy. Clk., writes us that pipe and castings for the extension of the works to Orange Brook have been purchased. A reservoir of 50,000,000 gallons capacity will be built on Orange Brook. There will be no contract work, but supplies for the intake have not been bought. Freeman C. Coffin, Engr., Boston; C. S. Currier, Cy. Engr.

BOSTON, MASS.—Bids are asked until Aug. 31 for constructing a truss with one span of 89 ft. for the water-works conduit, as stated in our advertising columns. L. E. Hawes, 73 Tremont St.——Nawn & Brock, Boston, have been awarded the contract for stripping a part of the reservoir at Clinton, at over $1,000,000. H. H. Sprague, Chn. Metropolitan Water Bd.

LAWRENCE, MASS.—Bids for 200 meters, 82 tons of pipe and a supply of pig lead, have been asked by the water board.——The following bids were received Aug. 14 for two boilers for the works: Wright Stafford, $4,072; Scannell & Whaley, of Lowell, $4,162; E. Hodge Co., $4,622; E. McCabe, $4,274, and Edward Kendall & Sons, Cambridgeport, $5,000.

RUSSELL, MASS.—W. B. Shelly is making surveys for supplying this place with water.

CHESHIRE, MASS.—The Cheshire Water Co. has let the contract for a new reservoir and for laying a pipe to Chas. D. Cummings, Cheshire.

BALLSTON SPA, N. Y.—Flood & Sherrill, Sandy Hill, N. Y., have been awarded the contract at $11,432 for furnishing four miles of pipe and for laying the same. The other bids were: Jos. Clements, $12,639; Metropolitan Paving & Construction Co., $12,966.

DANSVILLE, N. Y.—The water commissioners propose to construct a new supply main for an increased water supply.

BATAVIA, N. Y.—The question of an increased water supply is being considered.

BUFFALO, N. Y.—Bids are asked until Sept. 1 for furnishing 25 tons of pig lead for calking purposes. R. G. Parsons, Secy. Bd. Pub. Wks.

MASSENA, N. Y.—The St. Lawrence Water Co. has been granted a franchise for works and will at once make surveys.

NEW YORK, N. Y.—Bids are asked until Sept. 6 for building overflow and blow-off sewers, water pipes and appurtenances, in connection with the Jerome Park reservoir of the new Croton Aqueduct, Borough of the Bronx. J. J. Ryan, Pres. Aqueduct Comn., 280 Broadway.

POTSDAM, N. Y.—The question of putting in a new dam, an intake and a 500,000-gallon stand-pipe is being considered.

SCHUYLERVILLE, N. Y.—The Saratoga Water Co. has been incorporated with a capital stock of $20,000 by G. R. Salisbury, W. S. Ostrander, C. M. Doolittle, E. D. Harris, Schuylerville; H. M. Geer, Civil Engr., Ballston Spa; and J. A. Dix, Thomson.

BRANCHVILLE, N. J.—The question of works is again being considered. J. B. Price, Mayor.

RAHWAY, N. J.—The Russell Water Co. has been incorporated with a capital stock of $25,000 by Edgar Marshall, 117 Main St., Rahway; F. G. Cartland, 55 Broadway, New York, and others.

PLAINFIELD, N. J.—The Feltville Water Company has increased its capital stock from $10,000 to $500,000, and proposes to compete with John Kean's water supply companies of Plainfield and Elizabeth, which have heretofore had a monopoly in Union county. Nearly the whole watershed at Glenside Park, five miles from Plainfield, is owned by the Feltville company. This watershed is the source of many of the streams of this section, and furnishes the Plainfield company's water supply. The Feltville company was incorporated originally 20 years ago, but has never developed its water supply for commercial purposes. Pres., Ernest Ackerman, Plainfield; Secy., Marion S. Ackerman, Plainfield; Treas., Dr. J. Ackerman Coles, Newark, N. J.

DARBY, PA.—The question of spending about $40,000 for a new water supply is being considered. The present supply is furnished by the Springfield Water Co., Philadelphia.

PENNSBURG, PA.—The Pennsburg Water Co. proposes to build a new reservoir and to lay a 4-in. main.

PHILADELPHIA, PA.—Director of Public Works Haddock has let contracts for about $200,000 worth of new engines and pumps for the various water pumping stations throughout the city. The giving out of these contracts is regarded as the first step toward improving and increasing the supply. The contract for two 5,000,000-gallon pumping engines at the Roxborough station was awarded to Henry R. Worthington, at $30,000 each. The same firm has the contract for furnishing and erecting two 5,000,000-gallon pumps, one at Roxborough high-service station and the other of the same power at Belmont, at $22,250 each. Macey, Henderson & Co. were given the

contract for erecting the engine house and intake at Roxborough, at $63,972. The contract for the boiler house at the same place was secured by the same firm at $18,-927. They also got the contract for constructing the electric crane at this place at $6,605. Robt. Wetherill & Co. secured the contract for two boilers for the Roxborough pumping station at $4,250 each. The other contracts were as follows: Henry R. Worthington & Co., pump chambers and valves, $7,300; Southwark Foundry & Machine Co., pump chambers and valves, at Queen Lane pumping station, $1,525; two 3,000,000-gallon pumping engines, at Frankford high-service station, the Holly Mfg. Co., at $17,276 each. In this bid only one contract was awarded, because the appropriation for the work was insufficient to purchase the two engines; Henry Kuemmerle was the contractor for erecting the new boiler house at this station at $16,699; J. P. Morris & Co. were awarded the contract for the three new boilers at this station at $14,975. The bids were given in our last issue.

PITTSBURG, PA.—An election will be held Sept. 19 to vote on the question of building a filtration plant, purchasing meters, etc., to cost about $2,500,000, and also for extending certain mains, etc., to cost $700,000. W. J. Diehl, Mayor.

BERRYVILLE, VA.—Bids are asked until Sept. 14 for furnishing the materials and for constructing works, as stated in our advertising columns. D. H. Jones, Mayor; T. S. Thompson, Recdr.

DOUGLAS, GA.—J. J. Walker, Mayor, writes us that it has been decided to put in an artesian well and later on works and an electric plant. No bonds will be issued before next year. No definite plans have been adopted. Population, 1,000.

MONTGOMERY, ALA.—Bids are asked until noon Aug. 25 for furnishing 18,000 lbs. of steel beams for the Court St. pumping station. G. A. Ellis, Consult. Engr.; R. H. Somerville, Cy. Treas.

PRATT CITY, ALA.—Bids are asked until Aug. 28 for constructing works to cost $25,000. It is proposed to erect a stand-pipe and reservoir. The city's debt is $500. Bids for the 6% bonds for this work were received Aug. 23. Information is wanted at once with regard to water supply from wells. Population, 3,500. Alber & Byrne, Engrs., Birmingham, Ala.; E. J. Hudnall, Mayor.

COMO, MISS.—P. H. Porter, Columbia Bldg., Louisville, Ky., has the contract for works, to cost $10,000.

NASHVILLE, TENN.—Bids are asked until Aug. 31 for furnishing 550 ⅝-in. and two 3-in. water meters. Couplings are to be furnished with the ⅝-in. and fish traps with the 3-in. meters. All meters to be delivered before Dec. 15, 1899. Geo. Reyer, Supt.

SOUTH PITTSBURG, TENN.—The Mountain Springs Water Co. has been incorporated with a capital stock of $10,000 by J. T. Fergason, R. A. Patton and M. M. Addison.

MUNFORDVILLE, KY.—It is stated that this place will soon have works.

OWENTON, KY.—Col. Wm. Lindsay and J. M. Herndon are organizing a company to supply this place with water. When $2,500 of the capital stock is subscribed work on an artesian well will be begun.

BLANCHESTER, O.—Bids are asked by E. W. Strawn, Secy. Blanchester Water Co., for 40,000 cu. yds. of excavation for the works.

CLEVELAND, O.—We are informed that the following bids were received Aug. 15 for one 7-ft. sluice gate: The Michigan Brass & Iron Works, Detroit, Mich., $1,896; the Coffin Valve Co., Boston, Mass., $2,879.

EAST JORDAN, MICH.—T. C. Brooks & Son, Jackson, Mich., have been awarded the contract for works.

MANISTEE, MICH.—E. W. Muenscher, Cy.Engr., writes us that the board of arbitrators consisting of Rudolph Hering and J. J. R. Croes, New York, and Peter Milne, Brooklyn, to whom was submitted the question of the price to be paid by the city for the works of the Manistee Water Co., has just submitted its award of the sum of $122,457.04. The city will probably take possession of the works Oct. 1, and in the meantime will investigate the question of additional supply, storage, extensions, etc.

CASEY, ILL.—The council has adopted plans and specifications for a joint water and light plant. Bids will be advertised for and work commenced at once and will cost $30,000.

TRENTON, ILL.—An election will be held Aug. 31 to vote on the question of issuing $5,000 in bonds for works.

TUSCOLA, ILL.—J. H. Culver, Pres. Culver Electric Co., writes us that bids are wanted at once for constructing works to cost from $15,000 to $30,000, and an electric plant to cost $15,000.

ARCADIA, WIS.—The question of works is being considered.

SUN PRAIRIE, WIS.—Bids are asked until 2 p. m. Aug. 24 for constructing works, as described in our advertising columns in our issue of Aug. 10. (Postponement from Aug. 17.) J. C. Fitch, Village Clk.

NORWAY, IA.—It is reported that this place is to have works.

DUNCOMBE, IA.—This place voted Aug. 14 to issue bonds for works.

HUDSON, IA.—The following bids were received Aug. 7 for constructing works: Jackson & Moss, Des Moines, $4,570; W. D. Lovell, Des Moines, $4,970.

TAMA, IA.—Bids are asked until Sept. 1 for furnishing 600 ft. of 4-in. pipe, valves, etc. D. T. Mauller, Cy. Clk.

OSKALOOSA, IA.—Bids are asked until Sept. 5 for supplying this city with water for 25 years, as stated in our advertising columns. The franchise of the Oskaloosa Water Co. is about to expire. G. L. McKibben, Engr., Van Wert, O.; D. C. Waggoner, Cy. Clk.

DILLON, MONT.—This place has voted to issue $75,000 in bonds for works and to purchase the electric plant.

HANNIBAL, MO.—Hiram Phillips, Lincoln Trust Bldg., St. Louis, has been employed by the council as consulting engineer in its negotiations with the Hannibal Water Co., with a view to purchasing the works. The franchise of this company expires Sept. 19. The city has the option of purchasing the works or of renewing the franchise.

AUGUSTA, ARK.—R. T. Harville, Secy. Bd. Public Improvements, writes us that the contract for works has been let to Phillip H. Porter, Columbia Bldg., Louisville, Ky., at $7,850.

BRINKLEY, ARK.—Philip H. Porter, Louisville, Ky., is preparing plans for works.

NEWPORT, ARK.—Reports state that bids will be asked at once for constructing city works and an electric plant. Population (1890), 1,571. Address A. D. Bailey, S. Wolff and J. M. Green.

PENDLETON, ORE.—The Pacific Bridge Co. will begin at once the construction of the works at this place.

BRYN MAWR, CAL.—The Bryn Mawr Water Co. has been incorporated with a capital stock of $40,000 by H. L. Drew, San Bernardino; J. E. Scott, Redlands; E. M. Izard, I. Mitchell, of Bryn Mawr.

PLEASANTON, CAL.—This town is considering the proposition to issue $20,000 in bonds to enlarge and extend the works. Bids will be asked for building a 400,000-gallon reservoir a short distance from the town.

YREKA, CAL.—The question of issuing bonds for works is being considered.

WADSWORTH, NEV.—Bids are asked until Sept. 14 for constructing works and a sewerage system at Pyramid Lake boarding school. F. B. Sprigg, U. S. Indian Agent, Wadsworth; W. A. Jones, Comr., Washington, D. C.

PICTOU, N. S.—Fred. Mackaracher, Town Clk., writes us that the council is soliciting correspondence with constructing companies with a view to constructing works. The source of supply is undecided. Some taxpayers favor the artesian well system, while others are in favor of a gravity system, the objection to which is the distance the water would have to be conveyed. Population, 3,500.

TAMPICO, MEX.—The governor of the state of Tamaulipas has authorized this city to proceed with the construction of works and of a sewerage system. This report is somewhat in advance of the official city notice. Address S. E. Magill, U. S. Consul, Tampico.

IRRIGATION

WAHOO, NEB.—The Fremont Canal & Power Co., Dodge county, filed on Aug. 3 an application for constructing a dam and reservoir. The dam will be 2,400 ft. long, and 627,264,000 cu. ft. will be the capacity of the reservoir.

HELENA, MONT.—The arid land commission is considering the question of reclaiming the 50,000 acres of land in Sweet Grass county. It will be necessary to build 60 miles of ditch for the work, and the cost will be about $400,000, according to reports.

GRAND JUNCTION, COLO.—Local reports state the question of building a ditch 40 miles long to irrigate 80,000 acres of land in Mesa county, is being considered. About $1,500,000 will probably be spent on the work.

SEWERAGE.

LONG MEADOWS, MASS.—It is stated the council will soon ask for bids on building a section of the system.

NEW BRITAIN, CONN.—The question of making estimates of various methods of sewage disposal this fall is being considered.

NEW YORK, N. Y.—Bids are asked until Aug. 30 for sewers in 11 streets in Brooklyn and Bronx boroughs. Jas. Kane, Sewer Comr., 13 Park Row, New York.

SYRACUSE, N. Y.—It is proposed to build a trunk sewer in the West End. Sam'l Dempsey, Chn. Com.

RIDGEFIELD PARK, N. J.—It is stated that it is proposed to build a system to cost from $50,000 to $100,000.

LANSDOWNE, PA.—At the election in November this place will probably vote on the question of issuing an additional $15,000 to complete the fund of $25,000 for the sewer to tidewater.

PHILADELPHIA, PA.—Local papers state that Dan'l Dooley, Geo. F. Mills, Howard E. Ruch, Richard Walsh, Robt. Higgins, C. D. Land, B. F. Dutton, R. P. Bennis, Jas. D. Riley & Co., Jos. Perna and N. P. Quinn, will be awarded the contracts for $600,000 worth of sewer work.

PHILADELPHIA, PA.—It is proposed to construct a new sewer in the Cohocksink, at a cost of $225,000. Councilman August Holl may be addressed.

PITTSBURG, PA.—An election will be held Sept. 19 to vote on the question of issuing $200,000 in bonds for new main sewers. W. J. Diehl, Mayor.

GREENVILLE, MISS.—Bids are asked until Sept. 5 for surveys, plans, etc., for the proposed system. J. M. Lee, Cy. Clk.

VICKSBURG, MISS.—The question of issuing $100,000 in bonds for a system is again being considered. W. L. Trowbridge, Mayor.

MEMPHIS, TENN.—The council is being urged to build more sewers in North Memphis. Address City Engineer Bell, Mayor Williams or Councilman Wm. La Croix.

LAKEWOOD, O.—Mayor Berchtold has appointed a new commission, consisting of Prof. H. W. Elliott, Chn.; N. C. Cotabish and Geo. J. Hoffman, to further investigate the question of a system. Population, 3,000.

LIMA, O.—The question of building new sewers is reported as being considered.

MANSFIELD, O.—Bids are asked until Aug. 30 for constructing a 10-in. pipe sewer. F. M. Remy, Cy. Clk.

GRANITE CITY, ILL.—Plans for a system to cost $40,-000 have been presented by Julius Pitzman, Engr., St. Louis, Mo.

MARION, IA.—J. L. Heberling, Cy. Clk., writes us that the following bids were received Aug. 15 for constructing sewage disposal works: (1) being for 5,200 ft. of outfall sewer; (2) for decomposition reservoir, and (3) for vitrification beds: Ford & De La Hunt, Cedar Rapids, Ia., (1) $3,800; (2) $1,600; (3) $2,900; two first bids were accepted. Jackson & Bokormy, Cedar Rapids, Ia., (1) $3,-900; (2) $2,700; (3) $2,200; E. Van Dyke, Des Moines, (1) $4,700; Wm. Horrabin, Iowa City, (1) $4,479. The bids for the vitrification beds were laid over. Wadle & Yeager, Engrs., Cedar Rapids, Ia.

ANACONDA, MONT.—Wm. Hawkins has been awarded the contract at $2,300 for a sewer in Oakland Ave.

SAN ANTONIO, TEX.—Press reports state that C. Villemain is suing the city for $12,000 damages on account of the sewer refuse running into the river. He resides 12 miles below the city.

EVERETT, WASH.—The question of putting in a system is being considered.

SACRAMENTO, CAL.—Bids are asked until 5 p. m. Aug. 28, for constructing a temporary sewage pumping plant. The work will consist of constructing a steel pipe sump in the brick sewer, engine-room and boiler-room with concrete floor and a corrugated iron building; the placing in position of three boilers belonging to the old plant; also of three pumps and two engines and motor; laying 24-in. discharge pipe to levee and connecting to present discharge pipe through levee; also of connecting to present 24-in. discharge pipe, and constructing a box in the steel pipe sump of iron or steel to contain gate and two strainers. M. J. Desmond, Cy. Clk.

SAUSALITO, CAL.—Bids are asked until 8 p. m., Sept. 4 for constructing pipe sewers. J. H. Pryor, Town Clk.

WATSONVILLE, CAL.—Bids are asked until 7 p. m., Aug. 24 for furnishing the materials and for constructing the system. The bids formerly received were rejected. R. S. Tuttle, Cy. Clk.

FORT DEFIANCE, ARIZ.—Bids are asked until Aug. 29 for constructing sewers and water-works for the Little Water School, N. Mex. G. W. Hayzlett, Indian Agent, Fort Defiance; W. A. Jones, Comr., Washington, D. C.

TAMPICO, MEX.—U. S. Consul Magill informs the state department that the governor of Tamaulipas has ordered the construction of a system.

GARBAGE DISPOSAL—STREET CLEANING

CLINTON, MASS.—The question of purchasing a garbage wagon at a cost of $1,000 is being considered.

NEW HAVEN, CONN.—C. W. Kelly, Cy. Engr., informs us that on Aug. 17 the contract for street sprinkling was let to Alfred W. Forbes and Patrick Mortell, New Haven, at $2,753. This is for sprinkling that portion of the streets in which there are street railway tracks, which remains after deducting 9 ft. in width for each line of track, from Aug. 15 to Nov. 20. The length of streets sprinkled under this contract is 28½ miles.

ALBANY, N. Y.—Dr. F. C. Curtis, Chn. Garbage Com., Bd. of Health, writes us that the confirmation of a contract for collecting and disposing of the garbage has been before the council and has been referred back to the board of health for further consideration of recommendations. A report will be made by the board early in September, revising both recommendations and specifications.

LOUISVILLE, KY.—Bids are asked until 12 noon, Aug. 29, for furnishing and constructing a crematory to destroy 100 tons a day, or for destroying the garbage for 10 years. T. P. Craig, Secy. Bd. Pub. Wks.

JOLIET, ILL.—The board of health, it is reported, will ask the council for an appropriation for a crematory.

STREETS AND ROADS.

BOSTON, MASS.—Bids are asked by the Massachusetts Highway Commission until noon Aug. 24 for building about 2,000 ft. of road in Barre, 2,000 ft. of road in North Attleboro, and about 2,900 ft. of highway in Marshfield.

BRISTOL, CONN.—Local papers state that this town has appropriated $9,000 for constructing macadam roads.

CORTLAND, N. Y.—The Warren-Scharf Asphalt Paving Co. has received a contract for paving Port Watson St. with asphalt, at $26,499.

ELMIRA, N. Y.—The contract for supplying granite blocks for paving State St. was let to John A. Reddington, White Haven, Pa., on Aug. 16.

GENEVA, N. Y.—Bids are asked until Aug. 28 for about 1,700 sq. yds. of brick pavement, as stated in our advertising columns. C. Seybolt, Supt. Bd. Pub. Wks.

NEW ROCHELLE, N. Y.—Bids are asked by the City Clerk until Sept. 5 for about $300,000 worth of paving.

WHITE PLAINS, N. Y.—Bids are asked until Aug. 28 for $78,000 of 3½% bonds for street improvements. W. E. Sterling, Supervisor, No. 1 Spring St.——Plans are being prepared for macadamizing the village streets by Village Engineer Darling; bids will be asked when completed.

PHILADELPHIA, PA.—Local papers state that Councilman Klemmer has prepared ordinances for the balance of the $2,000,000 appropriation for the improvement of Delaware Ave. and will submit them at the first council meeting in September.

PITTSBURG, PA.—An election will be held Sept. 19 to vote on the question of completing the Grant and Beechwood boulevards, to cost $300,000. Wm. T. Diehl, Mayor.

READING, PA.—Bids are asked until 3 p. m. Aug. 24 for about 12,000 lin. ft. of granite curbing, 48,300 sq. yds. of asphalt paving, and 2,400 sq. yds. of brick paving. Samuel S. Hoff, Cy. Engr.

BALTIMORE, MD.—The following bids have been received by the building committee for constructing a cement walk about the court house: Thos. H. Hopkins & Co., $4,000; Southern Asphalt Pavement Co., $3,396; J. L. Robinson, $3,149; Filbert Pavement & Construction Co., $2,238.

WASHINGTON, D. C.—Bids are asked by the district commissioners until Sept. 2 for grading a roadway from Brightwood Ave. across Rock Creek Park, as stated in our advertising columns.

DANVILLE, VA.—Bids are asked until Sept. 18 for repaving Main St., about 5,120 ft., with brick, as stated in our advertising columns. C. A. Ballou, Cy. Engr.

ROANOKE, VA.—Bids are asked until Sept. 6 for macadamizing three streets. J. H. Wingate, Cy. Engr.

BIRMINGHAM, ALA.—Bids are asked until Sept. 6 for about 18,000 sq. yds. of brick pavement. Julian Kendrick, Cy. Engr.

ASHTABULA, O.—Bids are asked until Sept. 2 for about 9,200 sq. yds. of brick paving, and for constructing about 150,000 ft. B. M. of beech plank road, as stated in our advertising columns. Frank W. Wagner, Cy. Clk.

DEFIANCE, O.—Bids are asked until Sept. 9 for improving Holgate Ave. and Perry St. J. J. Malley, Cy. Clk.

EAST LIVERPOOL, O.—John A. George, Cy. Engr., writes that the following bids were recived Aug. 17 for 39,692 cu. yds. grading, 2,025 lin. ft. curbing, 9,800 sq. yds. roadway paving and 2,000 sq. yds. sidewalk paving: Foley Bros., Columbus, O., $23,351; J. M. Miller, Youngstown, O., $27,472; H. S. Rinehart, East Liverpool, $28,-753; I. W. Logan, Rochester, Pa., $34,281.

GREENVILLE, O.—Bids are asked until Sept. 14 for improvements to six streets. W. D. Brumbaugh, Cy. Engr.——The council has passed an ordinance for paving 20 squares of street; estimated cost, $66,000.

LIMA, O.—Bids are asked until Sept. 13 for the improvement of South West, Linden and Water Sts. C. E. Lynch, Cy. Clk.

TOLEDO, O.—Bids are asked until Sept. 18 for paving Vermont Ave., from Bancroft to Cherry Sts. Wm. O. Holst, Cy. Clk.

TORONTO, O.—Bids are asked until Sept. 15 for laying sidewalks. D. O. Ault, Cy. Clk.

WAUSEON, O.—Bids are asked until Sept. 4 for constructing about 16,500 yds. of brick pavement, as stated in our advertising columns. H. S. Bloomer, Cy. Clk.

YOUNGSTOWN, O.—Bids are asked until Sept. 9 for improving East Rayen Ave., between Walnut and Watt Sts. C. E. Cross, Clk. Comrs.

EVANSVILLE, IND.—Bids are asked until Sept. 2 for paving College St. with brick, and until Sept. 9 for paving six alleys with brick. Geo. W. Swearingen, Clk. Bd.

GAS CITY, IND.—Bids are asked until Sept. 5 for constructing 9,409 ft. of brick sidewalks. J. J. Leonard, Engr.; J. R. Hadley, Cy. Atty.

DETROIT, MICH.—Bids are asked until 10 a. m. Aug. 24 for paving six streets with asphalt. D. W. H. Moreland, Pres Bd. Pub. Wks.

DANVILLE, ILL.—Bids are asked until 3 p. m. Aug. 24 for constructing macadam roads on the grounds of the Danville branch of the National Home for D. V. Soldiers. J. M. Bermingham, Gen'l Treas.

MOLINE, ILL.—Local papers state that City Engineer Paddock is preparing estimates for proposed pavement in 4th and 5th Aves. and 14th St.

LA CROSSE, WIS.—The council has voted to issue $25,-000 in bonds for brick paving, as stated in reports.

MILWAUKEE, WIS.—Bids are asked by the commissioners of public debt until Aug. 25 for the purchase of $100,-000 in bonds for street improvements.

MINNEAPOLIS, MINN.—Bids are asked until Aug. 25 for 3,700 sq. yds. of brick paving, and 1,900 sq. yds. of sandstone pavement. G. W. Sublette, Cy. Engr.

WELLAND, ONT.—Bids are asked until Aug. 26 for constructing about 120,000 sq. ft. of concrete sidewalk. C. H. Reilly, Chn. St. Com.

MANUFACTURING PLANTS.

FAIRFIELD, ME.—We are informed that plans are about completed for additions to the Somerset Fibre Co.'s plant. It is intended to make it one of the largest and best equipped pulp mills in that locality.

PLAINVILLE, CONN.—We are informed that Chas. W. Calor, Plainville, has had plans prepared for a one-story frame shop, 72 x 30 ft., with an L 25 x 16 ft., in which he will install a 20 or 25-HP. engine and a 35-HP. tubular boiler. Wm. H. Caldwell, Arch., New Britain, Conn.

JAMESTOWN, N. Y.—A fire in this city Aug. 17 destroyed the factory buildings of the Jamestown Axe Co., the Brooklyn Flouring Mills, the Jamestown Desk Co. and others; reported loss, $250,000.

LANSINGBURG, N. Y.—It is reported that the plant of the Beacon Electric Co. will be improved at a cost of about $10,000. A new 250-HP. boiler has been bought.

ALLEGHENY, PA.—It is reported that the Riter-Conley Mfg. Co. has contracted to erect two modern blast furnaces for the American Steel & Wire Co. at a cost of $1,500,000. It is expected to have the furnaces in blast within a year. Each furnace will have a capacity of 600 tons. One will be located in Allegheny and the other will be built as part of the Cleveland Rolling Mill. Each of the stacks will be 100 ft. high and 23 ft. in diameter at the base.

CHESTER, PA.—Work has been commenced on some of the buildings to be erected here for the South Chester Tube Mills, incorporated Aug. 15 with $1,000,000 capital stock. Three brick buildings will be built first, measuring 400 x 80 ft., 400 x 80 ft. and 420 x 80 ft., respectively. W. S. McManus, Pres.

LATROBE, PA.—Reports state that the Davis Glass Co. will increase its capital stock from $100,000 to $200,000, so as to double the capacity of its plant at Latrobe. A polishing department will be established.

McKEES ROCKS, PA.—Ground was broken Aug. 18 for the new plant of the Pennsylvania Malleable Steel Co. at this place. The new mill will employ about 600 men, and it is estimated to cost $40,000, exclusive of the machinery. G. S. White, Pres.

WILLIAMSPORT, PA.—Press reports state that Geo. C. Bayless, Binghamton, N. Y., is the promoter of a project to erect a large pulp and paper mill in this city.

UNION, S. C.—T. C. Duncan, Union, and Morris Whitridge, Baltimore, Md., are reported to be interested in the construction of a large cotton mill about 2½ miles from this place, to contain 50,000 spindles and 1,200 looms.

COLUMBUS, GA.—Contracts will soon be let, according to reports, for constructing a new 3-story cotton factory building, 80 x 120 ft., for the Eagle and Phoenix Mills.

SYRACUSE, IND.—Plans and specifications will be completed in about two weeks, for a new cement plant to be erected at Syracuse. Some of the buildings will be of brick and steel construction and others of all steel construction, covered with corrugated iron. The Osborn Co., Engr., Osborn Bldg., Cleveland, O.

CARBON CLIFF, ILL.—We are informed that the Argillo Works of this place will erect a 3-story frame building, 72 x 210 ft., with an L 100 x 100 ft., gravel roof, for the manufacture of fire brick, drain tile, sewer pipe, etc. Rock Island, Ill., contractors will build the plant; estimates have not yet been completed.

PEORIA, ILL.—Reports state that the Marsden Co., Philadelphia, Pa., will erect a new cellulose factory here at once, to cost about $75,000.

NORTH SYDNEY, N. S.—It is reported that the Nova Scotia Steel Co., New Glasgow, N. S., and the General Mining Association will be consolidated, and that the new plant will include a shipbuilding plant, steel rail plant and dock. The company owns mines at Belle Isle, Newfoundland.

LYONS, FRANCE.—A company to be known as La Societe Electrico-Chinique de la Romanche has just been organized, according to reports, with office at 11 Rue de l'Hotel de Ville, Lyons; capital stock, $600,000. Considerable modern machinery and tools will probably be bought.

GAS PLANTS.

FLUSHING, L. I.—The New York & Queens Gas & Electric Co. will make improvements in the lighting of Flushing, including Ingleside, Whitestone and College Point, by replacing the old mains by new ones, and establishing a new plant, according to reports.

GREENSBORO, N. C.—The Winstan-Salem Gas & Lighting Co., recently organized, will erect a plant at Third and Fourth Sts.

FARIBAULT, MINN.—The plans for the new plant of the Faribault Consolidated Gas & Electric Light Co. are being prepared by O. F. Allen. The company will supply the towns of Northfield and Owatonna.

MISCELLANEOUS CONTRACTS.

DOCK.—Montreal, Que.—It is stated that an appropriation of $117,000 has been voted for extending the Levis graving dock.

DRY DOCK.—Cavite, Philippine Islands.—The question of building a dry dock at this place is being considered by the navy department at Washington.

WHARF.—Fort Washington, Md.—Bids are asked until Sept. 17 for reconstructing wharf, as stated in our advertising columns. J. C. Johnson, Q. M.

DREDGING.—San Francisco, Cal.—Bids are asked until Sept. 12 for dredging in Stockton and Mormon channels. Maj. W. H. Heuer, U. S. Engrs., Flood Bldg.

TELEPHONE.—Starke, Fla.—The council has granted a 10-year franchise to C. L. Goodwin, Athens, Ga., for operating a telephone exchange in this place.

CANAL WORK.—Portland, Ore.—Bids are asked until Sept. 1 for improving the canal at Cascades, Columbia River, Ore. Capt. Wm. W. Harts, U. S. Engrs.

DREDGING.—Oakland, Cal.—The only bid submitted Aug. 10 for dredging 50,000 cu. yds. was that of Johnson & Peterson's for $23,900, according to reports.

WHARF.—Boston, Mass.—Bids are asked until Sept. 16 for reconstructing the pile wharf at Castle Island, Boston Harbor. Col. Chas. R. Suter, U. S. Engrs.

GUN FORGINGS.—Washington, D. C.—Bids are asked until Sept. 6 for furnishing 16 sets of 4-in. gun forgings. Chas. O'Neil, Ch. Bureau of Ordnance, Navy Dept.

DITCH.—Algona, Ia.—Bids are asked until Sept. 4 for constructing a ditch seven miles long, as stated in our advertising columns. M. P. Weaver, County Audr.

FERRYBOAT.—Woolwich, Me.—The towns of Bath and Woolwich propose to purchase a new ferryboat; estimated cost, $15,000. F. W. Carleton, Chn. Selectmen.

RIVER IMPROVEMENTS.—New Orleans, La.—Bids are asked until Sept. 21 for improving Calcasien River and pass. Maj. James B. Quinn, U. S. Engrs., Custom House.

DREDGING.—Toledo, O.—The contract for about 600,000 yds. of dredging at the Centennial grounds has been sub-let to Breyman Bros. by Contractor Albert Hussey.

BREAKWATER.—Chicago, Ill.—Bids were received by the commissioners of Lincoln Park on Aug. 21 for constructing a 300-ft. breakwater opposite the sea wall near Bank St.

HIRE OF BOAT.—Sabine River, Tex.—Bids are asked until Sept. 7 for hire of boat for improving the river. Maj. James B. Quinn, U. S. Engrs., Custom House, New Orleans, La.

DREDGING.—Cape Porpoise, Me.—Bids are asked until Sept. 18 for dredging harbor, as stated in our advertising columns. Maj. S. W. Roessler, U. S. Engrs., 537 Congress St., Portland.

TELEPHONE LINE.—Rockland, Me.—Local papers quote M. T. Bird, treasurer and manager of the Eastern Telephone Co., as stating that the company proposes to extend its lines to Gardner.

HIRE OF DREDGE.—Mermeutan River, La.—Bids are asked until Sept. 21 for the hire of a dredge for improving the river and its tributaries. Maj. James B. Quinn, U. S. Engrs., Custom House, New Orleans.

RIVER IMPROVEMENTS.—Galveston, Tex.—Bids are asked until Sept. 20 for improving the mouth of Brazos River by repairing jetties, etc., as stated in our advertising columns. Capt. C. S. Riche, U. S. Engrs.

CONDENSER TUBES.—Norfolk, Va.—Bids are asked until Aug. 29 for furnishing a quantity of condenser tubes at the navy yard. A. S. Kenny, U. S. N., Paymaster-General, Navy Department, Washington.

GENERATING SETS.—Portsmouth, N. H.—Bids are asked until Aug. 29 for furnishing at the navy yard two generating sets with compound engines. A. S. Kenny, Paymaster-Gen., U. S. N., Navy Dept., Washington.

CANAL WORK.—Albany, N. Y.—Bids are asked until Sept. 1 for rebuilding Locks Nos. 47 and 64, in Oneida county, on the Black River Canal, as stated in our advertising columns. John N. Partridge, Supt. Pub. Wks.

MACHINERY AND POWER HOUSE.—New Orleans, La.—Bids are asked until Sept. 28 for furnishing operating machinery and power house for improving Bayou Plaquenime. Maj. J. B. Quinn, U. S. Engr., Custom House.

CEMENT.—Brooklyn, N. Y.—Bids are asked until Aug. 29 for furnishing the navy yard with Portland cement, broken trap rock or granite and sand. A. S. Kenny, Paymaster-General, U. S. N., Navy Department, Washington.

CABLE.—Mexico, Mex.—Press reports state that the government has let the contract for laying a cable from Altata, State of Sinaloa, to Lopaz, Lower California, a distance of 114 miles, the work to be completed within six months.

PARK IMPROVEMENTS.—Pittsburg, Pa.—An election will be held on Sept. 19 to vote on the question of improving Schenley, Highland and South Side parks, at respective costs of $300,000, $100,000 and $100,000. Wm. J. Diehl, Mayor.

CRANES.—Brooklyn, N. Y.—The contracts for six electric cranes for the navy yard were awarded by the Navy Department, Washington, D. C., on Aug. 17 to the Morgan Co., Alliance, O., and the Niles Tool Works, Hamilton, O. Total cost, $35,080.

RIVER IMPROVEMENTS.—Chicago, Ill.—Local reports state that extensive improvements will be made in the Calumet River at 93d St. The Chicago Junction Ry. is said to be at the head of the enterprise, and that $1,000,000 will be expended for the work.

MONUMENT.—Indianapolis, Ind.—The following bids have been received for the cascade groups on the monument: Franz Engelsman, Chicago, $15,000; Herman N. Matazen, New York, $16,000; Rudolph Schwartz, Indianapolis, $17,000; Bell & Mauch, Chicago, $16,000.

TIMBER FLUME.—Hudson, Wis.—Bids are asked for a timber flume about 1,100 ft. long and 15 ft. square, containing about 900,000 ft. of lumber, to be erected in St. Croix county, as stated in our advertising columns. Chas. L. Fitch, Engr., Sawyer House, Stillwater, Minn.

TUNNEL.—New York, N. Y.—An application was filed on Aug. 15 by the Manhattan & Jersey City R. R. Co. for a franchise to construct a double tunnel under the North River, making Liberty and Washington Sts. the Manhattan terminal. The location of the Jersey City terminal has not yet been decided.

DAM, DREDGING AND CULVERT.—Albany, N. Y.—The following contracts have been awarded for river improvements: Wm. Coats, Raymondville, N. Y., for removing obstruction from Raquette River and building dam near Raymondville, $2,268; G. D. Grannis, Syracuse, N. Y., for dredging the Cayuga and Seneca canal, $1,025; Hallinan Bros., Little Falls, N. Y., for constructing culvert at Little Falls, N. Y., $4,490.

SHELLS.—Washington, D. C.—The Ordnance Bureau of the War Department awarded on Aug. 19 the following contracts for shells: Benjamin Atha & Illingsworth Co., 440 armor piercing shells; Carpenter Steel Co., 202 12-in. armor piercing shells and 1,200 deck piercing shells; Midvale Steel Co., 811 deck piercing shells and 212 torpedo shells; Taylor Iron & Steel Co., 800 12-in. torpedo shells. The total of the contracts is $443,664.

REMOVING ROCK.—San Francisco, Cal.—Maj. W. H. Heuer, U. S. Engrs., room 41 Flood Bldg., received, on Aug. 12, the following bids for removing rock in San Francisco harbor, all bidders of San Francisco except where otherwise stated: Rudolph Axman, Los Angeles, Cal., $283,500; G. M. Perine & A. E. Buckman, $452,000; City Street Improvement Co., $277,439; Pacific Construction Co., $520,000; C. A. Warren & Healy, Tibbitts & Co., $317,000; California Bridge & Construction Co., $559,350; Christie, Lowe & Heyworth, Chicago, $287,379; Dunbar & Sullivan, Buffalo, N. Y., $443,841; J. C. Bull, Jr., Eureka, Cal., $444,000.

HARBOR WORK, ETC.—Tokio, Japan.—Reports state that the municipality will send to America and Europe a commission to inquire into the most practical ways for certain engineering projects. The cities to be visited include six in the United States, five in Great Britain, three in France, two each in Belgium, Germany and Austro-Hungary and one each in Italy and Holland. One problem is how to deepen the harbor of Tokio. The bay is a large natural harbor, but it lacks sufficient depth of water for the largest vessels. The rivers which flow into it carry down an immense amount of detritus, and many schemes have been proposed to get over the difficulty. The latest proposal is to divert the Sumida River, which is the chief cause of the difficulty, into the Makagawa. A project proposed by Mr. Furnichi, Ch. Engr. Home Dept., is to fill up the entire foreshore from the Shaba detached palace to Shinagawa by dredging the bay in front. It is estimated that the area of the reclaimed land would be 800,000 tsubo, which, at 100 yen per tsubo, would represent 80,000,000 yen. It is further estimated that the cost of the work would not be more than 30,000,000 yen. The whole matter is to be carefully considered, for if the cost is such as to make it necessary to levy harbor dues and wharfage charges shippers will certainly prefer Yokohama, which is distant only about 18 miles by rail.

CONTRACT PRICES.

WATER-WORKS.—Cullman, Ala.—The following bids were received Aug. 14, 1899, for furnishing the materials for the proposed water-works; J. A. Holmboe, Engr., Louisville, Ky.: (1) being for hydrants, (2) 6-in. valves, 14; (3) 8-in. valves, 2; (4) 10-in. valves, 4; (5) valve boxes, 19; (6) 244 tons cast-iron pipe, (7) 2 tons of specials, (8) two 12 x 8 x 12-in. and two 6 x 4 x 6-in. pumps and boiler feeders, (9) two 12 x 8 x 10-in. and two 6 x 4 x 6-in. pumps and boiler feeders, (10) high pressure 125-HP. engine, (11) 125-HP. compound engine; (12) air compressor and 30 x 72-in. receiver, (13) two 100-HP. boilers, (14) 200-HP. heater, (15) stand-pipe: Moore & McCrary, Atlanta, Ga., lump sum, $31,277 (acecpted); Frank Shefold, New Albany, Ind., lump sum, $34,712; Rensselaer Mfg. Co., Troy, N. Y.—(1) $22.55 each, (2) $10.85 each, (3) $15, (4) $23.50, (5) $2.50; U. S. Cast-Iron Pipe & Foundry Co., Chattanooga, Tenn.—(6) $31.00 a ton, (7) $60 a ton; Laidlaw-Dunn-Gordon Co., Cincinnati—(8) $1,307 each, (9) $1,267 each, (12) $1,117, (14) $165; Henry R. Worthington, New York—(8) $1,650; R. D. Cole, Newnan, Ga.—(13) $2,250, (15) $6,477; W. A. Schlosser, Cullman, lump sum, $27,420 (bid not considered; no certified check; John McGowan, Cincinnati, O.—(8) $1,235, (9) $1,175, (12) $1,000; Millner & Kettig, Birmingham, Ala.—Atlas boilers and engines and Smith-Vaile pumps, $5,900; Bourbon Copper & Brass Works, Cincinnati—(1) $17.43, (2) $9.47, (3) $13.50, (4) $18.75, (5) $2.15; Harrisburg Foundry & Machine Co., Harrisburg, Pa.—(10) $1,000, (11) $1,711. All bids for material are f. o. b. cars Cullman.

WATER DEPARTMENT SUPPLIES.—Buffalo, N. Y.—We are informed that the bureau of water supplies, board public works, received the following bids Aug. 11, 1899, for furnishing supplies, all bidders of Buffalo, except as otherwise stated: Carting cast-iron pipe and castings, Chas. F. Mensch, 50 cts. a ton; T. J. Downing, 65 cts. Cast-iron special casting from 3 to 48 ins. in diameter and all others: U. S. Cast Iron Pipe & Foundry Co., green sand specials, $55 a net ton; loam specials, $70. Cast-iron water pipe, straight lengths, from 3 to 48 ins. in diameter: U. S. Cast Iron Pipe & Foundry Co., straight lengths, all sizes at foundry, $29 a net ton; Camden Iron Works, Philadelphia, straight lengths, f. o. b. Buffalo, 3-in., $34 a net ton; 4-in., $32; 10-in., $31; 12 and 16-in., $30; 20, 24, 30 and 36-in., $29; 48-in., $27. Hydrants: The Kennedy Valve Mfg. Co., New York (accepted), 5 6-ft. hydrants with 6-in. stand-pipe, 1 4-in. and 1 2½-in. opening, $33 each; 10 5-ft., $32; 20 4-ft., $31; Howard Iron Works, 5 6-ft. hydrants with 6-in. stand-pipe, 1 4-in. and 1 2½-in. opening, $238; 10 5-ft., $465; 20 4-ft., $910; hydrants with 8-in. stand-pipe and 2 4-in. and 1 2½-in. openings, with independent valves, each $77; 5-ft. and 6-ft. hydrants with 6-in. stand-pipe and 1 2½-in. and 2 4-in. openings for double supply, with a base to connect two 6-in. pipes at right angles, each $52. Valves and service boxes, manhole frames and covers and vault covers: Bingham & Taylor, No. 160 base, $1.30 each; No. 80 middle, 8 ins. long, 58 cts.; No. 81, 14 ins., 82 cts.; No. 82, 20 ins. long, $1.27; No. 83, 26 ins., $1.33; No. 84, 36 ins., $1.63; No. 85, 48 ins., $2.60; No. 74 upper, 9 ins., $1.33; No. 75, 15 ins., $1.83; No. 76, 26 ins., $2.71; No. 71 extension, 7-in. shaft, 14 ins. long, $1.30; No. 58 extension, 5¼-in. shaft, 14 ins. long, $1.00; No. 89 flange cover, $1.24; oval cover, $1.24; No. 87 flat cover, 72 cts.; size "D" valve-box, No. 6 base, complete, 5¼-in. shaft, $4.75; size "L" valve-box, No. 160 base, complete, 7-in. shaft, $6.00; 3-in. service-box complete, 3-in. shaft, $1.00; valve vaults and vault covers, 2½ cts. a lb.; manhole frames and covers, 2½ cts. Valves: The Kennedy Valve Mfg. Co., New York (accepted), 10 (more or less) 3-in. valves, weight, 50 lbs., $5.00 each; 50 4-in., 90 lbs., $6.25; 200 6-in., 180 lbs., $9.60; 5 10-in., 385 lbs., $23; 5 12-in., 504 lbs., $29; 2 16-in., 838 lbs., $55; 6-in., 259 lbs., $15; 20-in., 1,400 lbs., $94; 24-in., 3,000 lbs., $140; 30-in., 5,213 lbs., $284; 36-in., 6,786 lbs., $475; 48-in., 9,551 lbs., $975; W. A. Case & Son (informal), 3-in. Chapman valves, $5.30 each; 4-in., $6.81; 6-in., $9.85; 8-in., $16.17; 10-in., $23.45; 12-in., $32; 16-in., $52.11; 20-in., $91.14; 24-in., $132.96; 30-in., $274.90; 36-in., $425.11; 48-in., $917.78; Rensselaer Mfg. Co., Troy, N. Y., 3-in. valves, $5.25; 4-in., $6.65; 6-in., $11.50; 8-in., $17.15; 10-in., $23.35; 12-in., $30.75; 16-in., plain, no gearing, $59; 16-in., geared, $66; 20-in., bevel geared and indicators, $127.85; 24-in., $173.50; 30-in., $305; 36-in., and by-pass, $540; 48-in., $1,165; Ludlow Valve Co., Troy, N. Y., 3-in. valves, $6.25; 4-in., $7.40; 6-in., $12.25; 8-in., $18.25; 10-in., $26.20; 12-in., $33.25; 16-in., $62.45; 20-in., $103; 24-in., $175; 30-in., $326; 36-in., $503; 48-in., $1,164; Mohawk & Hudson Mfg. Co., Waterford, N. Y., 3-in. valves, $5.50 each; 4-in., $6.50; 6-in., $11; 8-in., $17.50; 10-in., $26; 12-in., $32; 16-in., $65; 20-in., $110; 24-in., $170; 30-in., $300; 36-in., $500; 48-in., $1,100, or will furnish 10 3-in. valves, 50 4-in. valves, 200 6-in. valves, 5 10-in. valves, 5 12-in. valves and 2 16-in. valves for $2,649; Michigan Brass & Iron Works, Detroit, Mich., 10 3-in. valves, 40 lbs., $4.90 each; 50 4-in., 92 lbs., $6.70; 200 6-in., 160 lbs., $10.70; 200 6-in., 200 lbs., $11.35; 8-in., 245 lbs., $16.45; 5 10-in., 397 lbs., $23; 5 12-in., 465 lbs., $32; 2 16-in., 1,080 lbs., $60; 20-in., 2,125 lbs., $117; 24-in., 3,300 lbs., $173; 30-in., 5,500 lbs., $305; 36-in., 8,000 lbs., $434; 48-in., 18,000 lbs., $985; valves from 20 ins. up include gears and indicators; for valves of these sizes without gear deduct $11 each. Meters: Neptune Meter Co., New York, Trident meter, ⅝-in., including connections and strainers, $8.40 each; ¾-in., $12.60; 1-in., $16.60; 1½-in., $30; 2-in., $50; 3-in., $85; 4-in., $190; 6-in., $380; fish traps, if required, will be furnished as follows: 3-in., $10; 4-in., $15; 6-in., $20. Union Water Meter Co., Worcester, Mass., Union Rotary Piston meters, ⅝-in., connections and fish traps, $14; ¾-in., $20; 1-in., $29; 1½-in., $45; 2-in., $67; 3-in., $105; 4-in., $200; 6-in., $450. Pittsburg Meter Co., East Pittsburg, Pa., ½-in., with connections and connection strainers, $8; ⅝-in., $8; ¾-in., $12; 1-in., $16; 1½-in., $30; 2-in., $45; 3-in., $82; 4-in., $175; 6-in., 375; ½-in., (1) with connections, (1) $8; (2) with Westinghouse special strainers, (2) $1; ⅝-in., (1) $8; (2) $1; ¾-in., (1) $12; (2) $1.25; 1-in., (1) $16; (2) $2; 1½-in., (1) $30; (2) $3; 2-in., (1) $45; (2) $4; 3-in., (1) $82; (2) $7.50; 4-in., (1) $175; (2) $11; 6-in., (1) $375; (2) $20. Hersey Mfg. Co., Boston, Mass., Hersey Disc meters, (1) with round dials, (2) with straight reading dials, ⅝-in. meters, (1) $8, (2) $9; ¾-in., (1) $12, (2) $13; 1-in., (1) $16, (2) $17; 1½-in., (1) $30, (2) $35; 2-in., (1) $50, (2) $55; 3-in., (1) $85; (2) $90; 4-in., (1) $190, (2) $200; 6-in., (1) $380, (2) $400. Hersey Rotary meters, ⅝-in. meters, (1) $11, (2) $12; ¾-in., (1) $18, (2) $19; 1-in., (1) $25; (2) $26; 1½-in., (1) $40, (2) $45; 2-in., (1) $60, (2) $65; 3-in., (1) $120, (2) $125; 4-in., (1) $240, (2) $250; 6-in., (1) $480, (2) $500. Hersey Torrent meters, 2-in. meters, (1) 40, (2) $45; 3-in., (1) $85, (2) $90; 4-in., (1) $165, (2) $175; 6-in., (1) $380, (2) $400; 8-in., (1) $680, (2) $700; 10-in., (1) $880, (2) $900; 12-in., (1) $1,250, (2) $1,270; connections for Hersey or Hersey Rotary meters per set: ⅝-in., 40 cts.; ¾-in., 60 cts.; 1-in., 60 cts.; connections for meters of all styles, 2 ins. and larger, no charge; strainers for Hersey meters of all styles, ⅝-in. to 2 ins., inclusive, no charge; fish traps for Hersey meters of all styles, each: 3-in., $10; 4-in., $15, and 6-in., $20. Standard Water Meter Co., New York, ½-in. Standard Disc meters or Current meters, $7.50 each; ⅝-in., $7.50; ¾-in., $11.25; 1-in., $15; 1½-in. Standard Current meters or Disc meters, $30; 2-in., $45; 3-in., $75; 4-in., $112; 6-in., $225; if allotted the whole order there will be no extra charge for fish traps or strainers. Strainers: For ½-in., ⅝-in. and ¾-in., 50 cts.; 1-in., $1; 1½-in., $1.50; 2-in., $2.50; 3-in., $5; 4-in., $10; 6-in., $15. National Meter Co., New York, (1) for Crown meters "A" or "AA" style, (2) for "AA" Empire meters and (3) for "A" Nash meters with round dials, ⅝-in., (1) $10; ⅝-in., (1) $12, (2) $10, (3) $8; ¾-in., (1) $19, (2) $15, (3) $12; 1-in., (1) $27, (2) $20, (3) $16; 1½-in., (1) $50, (2) $40, (3) $30; 2-in., (1) $65, (2) $60, (3) $50; 3-in., (1) $135, (2) $100, (3) $85; 4-in., (1) $250, (2) $225, (3) $190; 6-in., (1) $500, (2) $400, (3) $380; connections for Crown, Empire and Nash meters: ⅝-in., 40 cts.; ¾-in., 60 cts.; 1-in., 90 cts.; 1½-in., $2; 2-in., $3; 3-in., $6; 4-in., $8; 6-in., $12; fish traps: 3-in., $10; 4-in., $15; 6-in., $20. "Regular" or "AA" style Gem meters: 2-in., $45; 3-in., $90; 4-in., $175; 6-in., $400; 8-in., $700; 10-in., $900; the connections for Gem meters are furnished without additional

charge. Corporation cocks: H. Mueller Mfg. Co., Decatur, Ill.: No. 1 brass corporation cocks as per specifications, ½-in. screw corporation cock, 38 cts. each; ⅝-in., 48 cts., ¾-in., 78 cts.; 1-in., $1.09; 1½-in., $2.85; 2-in., $4.68. No. 2. Below are the sizes, with weights, of its regular No. 4 corporation cocks, with its patent eel guards. The same goods have been used by the department for the past year: ½-in. screw corporation cocks, weight 1 lb. 2 oz., No. 1000, 68 cts.; ⅝-in., 1 lb. 7 oz., No. 100, 85 cts.; ¾-in., 1 lb. 14 oz., No. 100, $1.25; 1-in., 2lbs. 11 oz., No. 25, $1.65; 1½-in., 9 lbs., 3 oz., No. 15, $4.12; 2-in., 15 lbs. 10 oz., No. 10, $6.14. Corporation cocks No. 3. These corporation cocks are the same as in No. 2, without the eel guards, to be used only in its tapping machine, with the size of each and weight: ½-in., weight, 1 lb. 2 oz., No. 1000, 42 cts. each; ⅝-in., 1 lb. 6½ oz., No. 100, 53 cts.; ¾-in., 1 lb. 13½ oz., No. 100, 87 cts.; 1-in., 2 lbs. 10 ozs., No. 25, $1.21; 1½-in., 9 lbs. 1 oz., No. 15, $3.55; 2-in., 15 lbs. 8 oz., No. 10, $5.51. Repairs to asphalt pavements: Barber Asphalt Paving Co., New York, $2.80 a sq. yd.; German Rock Asphalt & Cement Co., Ltd., $2.80; Henry P. Burgard: skimming, 98 cts. a sq. yd.; surfacing, $1.45; asphalt, including concrete and binder, $2.80.

MACADAM ROAD.—Brimfield, Mass.—We are informed that the following bids were received Aug. 10, by the state highway commission, Boston, for building a road in Brimfield; contract let to Andrew Corbin; A. B. Fletcher, Secy.:

Bids Received at Boston, Mass., Aug. 10, 1899, for Building a Macadam Road in Brimfield.

Bidder.		Andrew Corbin, East Walpole.	J. J. Welch, Salem.	White & Gaffney, Medford.	Tuttle & Edgerly, Swampscott.	M. Warren Gould, Newton.	Flint Granite Co., Monsa.	Bell & Co., Boston.	Thos. Hurley, Lynn.	M. D. Gennaro, Boston.	David Hall, Boston.
Excavation	20,000 cu. yds.	$0.195	$0.28	$0.30	$0.22	$0.22	$0.26	$0.30	$0.33	$0.255	$0.27
Ledge excavation	300 " "	1.75	1.60	2.50	1.00	1.30	1.50	2.00	1.50	1.30	1.50
Rubble masonry laid dry	74 " "	8.75	5.00	3.50	4.50	5.00	5.00	4.00	4.50	4.30	5.25
Laid in cement	70 " "	6.00	8.35	7.00	8.50	6.50	7.00	7.00	6.00	8.30	7.50
Gravel	100 " "	.65	1.00	1.00	1.25	.45	.65	.75	.65	.80	.40
12-in. vit. clay pipe	194 lin. ft.	.65	.60	.85	.60	.60	.75	.60	.55	.75	.50
Fencing used as guard rail	3,360 " "	.20	.20	.20	.15	.25	.20	.16	.17	.16	.23
Side drains	100 " "	.25	.40	.40	.30	.40	.40	.25	.39	.35	.25
Stone monuments	48 each	2.50	1.50	2.00	1.50	1.50	1.50	1.50	1.50	2.50	1.50
18-in. vit. clay pipe	184 lin. ft.	.85	1.50	1.25	.80	.90	1.50	1.50	.70	1.10	.80
Total		$6,287	$8,338	$8,802	$6,623	$6,894	$7,781	$8,488	$8,786	$7,510	$7,918

PUBLIC LIGHTING.—Terre Haute, Ind.—The following bids were received by the board of public works July 15, 1899, for public lighting: The Terre Haute Electric Light Co., one year, 25,000 hours' lighting, $75 a light; three years, $72 a light; five years, $70; all night and every night, one year, $79; three years, $77; five years, $75. This is an increase of $11.05 a light over the company's contract price of $63.95 a light, which will make a total difference between the old and new prices of about $4,000 a year. The Citizens' Gas Co., five years, 25,000 hours, $23 a light; five years, all night and every night, $26 a light, with a provision that the city use not less than 1,020 lights. The gas company also has attached to its bid $28 a light for naphtha lamps on all streets where gas mains are not laid. The care and repair of the lamps are the same as the contract under which the city is now being lighted.

IMPROVING POND.—Boston, Mass.—The following bids were received by the Metropolitan Water Board Aug. 17 for improving Spot Pond, as advertised in Engineering News:

Bids Received at Boston, Mass., Aug. 17, 1899, for Improving Spot Pond.

Bidder.	Masonry walls demolished, 800 cu.yds.	Excavation—Earth, 55,000 cu.yds.	Excavation—Rock, 1,600 c. yds.	Rip-rap, 3,500 c.yds.	Cem. conc. masonry—Am. natl. hydric., 750 c.yds.	Cem. conc. masonry—Portland, 1,500 c.yds.	Plastering, 500 sq.yds.	Granite dimensn stone masy, 8 c. yds.	Laying 60-in. pipes, 300 lin.ft.	Total.
H.W.Wilson and W.B.Munroe,Jr., Boston	$2.00	$0.33	$2.39	$0.90	$5.80	$6.80	$0.80	$30.00	$1.50	$42.364
P. H. Fitzgerald, New London, Conn	1.00	.38	1.50	1.00	5.10	8.15	.24	25.00	1.25	44,345
R. D. Shanahan, Boston	1.00	.37	5.00	1.00	4.00	7.00	.50	50.00	1.50	47,250
Jones & Meehan, Boston	.25	.40	3.00	2.00	5.00	7.50	.50	40.00	1.00	49,870
Guy C. Emerson, Boston	1.50	.43½	2.88	1.45	4.88	7.85	.45	65.00	2.00	51,588
H. A. Hanscom & Co., Boston	2.00	.35	3.50	2.00	6.50	8.50	.50	60.00	2.00	52,405
Thos. Hurley & Co., Lynn, Mass	.50	.45	2.00	.90	5.50	11.00	.25	17.00	5.00	53,886
Jas. Driscoll & Son, Brooklyn, Mass	1.00	.45	3.00	2.00	5.50	8.00	1.00	60.00	2.00	55,055
Coleman Bros, Charlestown, Mass	1.00	.45	1.50	2.00	8.00	9.00	.50	30.00	1.50	55,390
Bruno & Salomone, East Boston, Mass	1.95	.36	3.95	1.75	6.00	9.75	2.00	70.00	4.00	55,690
The C. H. Eglee Co., Boston	1.00	.45	4.25	2.00	6.00	8.00	.50	75.00	2.00	57,300
Moulton & O'Mahoney, Boston	1.00	.45	3.00	2.00	7.50	9.00	1.00	75.00	3.00	58,475

ELECTRIC LIGHTING.—Kansas City, Mo.—This company, which Walter F. Wyman represents, has submitted the following proposition to furnish electric lights, if the city grants it a 30-year franchise to build and operate a plant: Arc lights, to burn from sunset to 10 p. m., are to be $8 a month, with a rebate of $1 if payment be made within ten days of the first of the month. Arc lights from sunset to midnight are to cost $12 per month—with a $1.50 rebate as above. All night arc lights $16 per month—with a $2 rebate. Standard 2,000-c. p. street lamps are to cost Kansas City and the park board not over $100 a year each; 1,200-c. p. lamps for streets are to be not over $85. It is also provided that the charges for heat and power shall not exceed the following scale (discounts being for payment before 10th of each month): Under 200,000 Watt hours, 10 cts. per 1,000 Watt hours; 200,000 Watt hours, 10 cts. per 1,000 Watt hours, 15% discount; 300,000 Watt hours, 10 cts. per 1,000 Watt hours, 20% discount; 400,000 Watt hours, 10 cts. per 1,000 Watt hours, 25% discount; 500,000 Watt hours, 10 cts. per 1,000 Watt hours, 30% discount; 600,000 Watt hours, 10 cts. per 1,000 Watt hours, 33⅓% discount; 800,000 Watt hours, 10 cts. per 1,000 Watt hours, 37½% discount; 1,000,000 Watt hours, 10 cts. per 1,000 Watt hours, 42% discount; 1,200,000 Watt hours, 10 cts. per 1,000 Watt hours, 45% discount; 1,400,000 Watt hours, 10 cts. per 1,000 Watt hours, 47½% discount; 1,600,000 Watt hours, 10 cts. per 1,000 Watt hours, 50% discount; 1,800,000 Watt hours, 10 cts. per 1,000 Watt hours, 52½% discount; 2,000,000 Watt hours, 10 cts. per 1,000 Watt hours, 55% discount. The city is to have the privilege of buying the plant at the expiration of the franchise for the actual value thereof.

PAVING.—Hamilton, O.—The following bids were received by the board of control July 15, 1899, for paving in 3d St.: Sheet Asphalt—Warren-Scharf Asphalt Paving Co., $2.18 a sq. yd.; D. Falz Paving Co., $2.21. Block Asphalt—J. M. Quill, $2.17 and $2.36; W. N. Andrews, $2.18 and $2.35—the latter bids being for North 3d St. Brick—J. M. Quill, $1.75; W. N. Andrews, $1.70. City Engineer Dillon estimated the work as follows: Sheet asphalt $1.75 a yd.; block asphalt $2.20; vitrified brick, $1.40.

DREDGING.—Savannah, Ga.—C. L. Dasher, Clk. U. S. Eng. Office, informs us that the following bids were received Aug. 8, 1899, for dredging in two harbors: P. Sanford Ross' bid was recommended for acceptance:

Bidder.	Brunswick, 65,000 cu.yds., cts.	Darien, 55,000 cu.yds., cts.
Stewart Contracting Co., Columbus,S.C.	18.3	20.3
P. Sanford Ross, Jersey City, N.J.	13.7	13.7
Rittenhouse R. Moore, Savannah, Ga.	15.3	16.18
Atlantic, Gulf & Pacific Co., New York	15.0	15.0

Extra work will be done at following prices: Material, at cost; foreman, 35 cts. an hour; masons, 40 cts.; mason's helpers, 20 cts.; laborers, 16⅔ cts.; double teams and drivers, 45 cts; single teams and drivers, 30 cts.; side drain extensions, 20 cts. a lin. ft.

BRICK PAVING.—Milford, Del.—We are informed that the following bids were received Aug. 9, 1899, for brick paving,Hallwood block: C. Simmonds & Bro.,Wilmington, Del., $2.12 for paving and 55 cts. for gravel road; total, $7,804; Sweeten & Son, Camden, N. J., $2.02 and 54 cts., respectively; awarded contract; total, $7,200.

PAVING.—Camden, N. J.—The committee has awarded the contracts for the paving of the following streets: Mechanic St., from 4th to 6th St. (Belgian blocks)—B. F. Sweeten & Sons, $1.37 a sq. yd.; Pine St., from Mt. Ephraim Ave. to Browning's Dye Works (Belgian blocks)—T. A. Wilson, $1.35; Carpenter St., from Camden & Atlantic R. R. to 10th St. (sheet asphalt)—Vulcanite Paving Co., $2.52; Vine St., between 6th and 7th Sts. (Belgian blocks)—T. A. Wilson, $1.35; Linden St., between 6th and 7th Sts. (Belgian blocks)—T. A. Wilson, $1.35; Washington St., between 2d and 3d Sts. (sheet asphalt)—Vulcanite Paving Co., $2.52.

DREDGING.—San Jose, Cal.—Maj. W. H. Heuer, U. S. Engr., San Francisco, received the following bids Aug. 11, 1899, for 206,700 yds. of dredging in Alviso Slough, which constitutes San Jose's water-way to San Francisco Bay: John Hackett, 15 cts. a cu. yd.; Dundon Dredging & Contracting Co., 19¾ cts.; Edward V. McCann, 6 cts.; Bowers California Dredging Co., 11 cts.; William Muir, 14¾ cts.; W. N. Concannon, 16.9 cts.; Marshall C. Harris, 13 cts.

ROAD.—Hamilton, Mont.—The following bids were received by the county commissioners, Aug. 7, 1899, for constructing 6 miles of new road: J. Burgoyne, $4,400; Milton Hammond, $3,900; Robert Harper, $2,945; Burton & McKnight, $3,250; W. H. Brennan, earth work, at 24½ cts. a yd.; loose rock at 40 cts., solid rock at 95 cts., culverts at $1 a lin. ft., cribbing at 40 cts. a yd., clearing road timber at $30 an acre.

SEWER.—Sioux City, Ia.—The following bids were received Aug. 9, 1899, for a sewer in Main and West 2d Sts.: E. J. Hanlon, 2-ring 36-in. brick, $2.75 a ft.; 30-in. pipe, $2.65; 24-in. pipe, $1.50; James Scollard, 36-in. brick, $2.97; 30-in. pipe, $2.56; 24-in. pipe, $1.31; Hanson Bros., 36-in. brick, $3.65; 30-in. pipe, $3.40; 24-in. pipe, $1.80.

LEVEE WORK.—Greenville, Miss.—The following contracts were let by the Board of Mississippi Levee Commissioners, Aug. 8, 1899, for certain levee work: H. Morgan, Victoria banquette, 12.4 cts. a cu. yd., Rosedale banquette, 13.9 cts. a cu. yd.; R. M. Edwards, Sec. 1, Riverton, new levee, 14½ cts., Sec. 2, Riverton, new levee, 14½ cts.; Thompson & Powell, Beulah banquette, 25 cts. and 13½ cts.; J. H. Bryan & Co., Jenkins levee, upper loop, 14.24 cts.; C. A. Winter, Jenkins levee, lower loop, 15.20 cts.; Green Clay, Catfish Point, topping, 20 cts., dyke, 16¾ cts.

GALVANIZED IRON ROOFING.—New York, N.Y.—Bids were received at the Army Building Aug. 17, 1899, for supplying 2,500 squares of corrugated galvanized iron roofing, No. 22 gage, 8 ft. x 2 ft. 2 ins.; 8,000 lin. ft. of corrugated galvanized iron ridge cap, with roll; 16,000 ft. galvanized iron gutter, with necessary hangers; 3,000 ft. down spout, with hangers. The bids included all necessary nails. The bids were as follows: Wheeling Corrugated Iron Co., roofing, $6.50 a square; ridge cap, 7 cts. a ft.; gutters, 6¼ cts. a ft.; spouts, 6¾ cts. a ft.; Meurer Bros. & Co., roofing, $6.20; ridge cap, 7⅛ cts.; gutters, 6⅝ cts.; spouts, 8⅛ cts., or the whole list for $17,402; Cincinnati Corrugated Iron Roofing Co., roofing, $6.65; ridge cap, 11 cts.; gutters, 12 cts.; spouts, 10 cts.: A. J. Lockwood, roofing, $6.90; ridge cap, 9.68 cts.; gutters, 7⅛ cts.; spouts, 9.9 cts.; Mayor, Lane & Co., roofing, $6.75; ridge cap, $7.35 a 100 ft.; gutters, $6.50 a 100 ft.; spouts, $7.20 a 100 ft.; Fox Bros. & Co., roofing, $5.59; ridge cap, 4¾ cts; gutters, 5¾ cts.; spouts, 6 cts.; Bannantine Galvanized Iron Mfg. Co., roofing, $8.50; ridge cap, 7 cts.; West Virginia Steel Co., lump sum, $18,289; J. W. Hoffman & Co., roofing, $7.05; ridge cap, 12¼ cts. (not corrugated 10¼ cts), gutters, 7⅝ cts.; spouts, 8 cts.; Jacob Ringle & Son, roofing, $6.80; ridge cap, 10 cts.; gutters, 10 cts.; spouts, 9 cts. The following bids were also received for furnishing 1,000 tons of pig iron ballast for the U. S. transport "Thomas" at Cramp's shipyards, Philadelphia: Janney, Steinmetz & Co., $20.90 a ton; Rogers, Brown & Co., $19.85; J. J. Mohr, $17.45; Pilling & Crane, $16.25; Howe, Johnson & Co., $19.45; W. R. Thomas, $17.25; L. & R. Wister & Co., $17.50.

INDUSTRIAL NOTES.

THE PRESSED STEEL CAR CO., Pittsburg, has received an order for body and truck bolsters for 500 Indiana, Illinois & Iowa Ry. cars.

THE AMERICAN STOKER CO., New York, has a contract from the Cudahy Packing Co. for 49 American stokers for its plants at Kansas City, South Omaha and Sioux City.

FRASER & CHALMERS, Chicago, have established sales offices at 1426 and 1429 Marquette Bldg., Chicago. The main offices remain at the new works, 12th St. and Washtenaw Ave.

MR. W. J. CARLIN, Pittsburg, has opened offices at 1210 Downing Bldg., 108 Fulton St., New York, under the management of Mr. Andrew Harper, for the sale of his contractors' tools, steam shovels, etc.

THOMAS CARLIN'S SONS, Allegheny, Pa., announce that the interest of Mr. Thomas H. Carlin has been purchased by the other partners, W. J. and J. H. Carlin, and that the business will be continued as heretofore under the name of Thomas Carlin's Sons.

THE KENNEDY VALVE MFG. CO., 50 Beekman St., New York, informs us that it has been awarded the contract, subject to approval of council, for furnishing the city of Buffalo with valves and hydrants for the ensuing year. The valves range from 3-in. to 48-in.

MR. J. C. McKENNIE, 401 and 402 Herald Bldg., Baltimore, Md., informs us that he is organizing a company for the manufacture of tiling, glazing bricks, stereotyping and transferring pictures on stone by a new process. The company is to have a capital of $100,000. The process is the invention of Mr. W. G. Day, of Baltimore.

WESTINGHOUSE, CHURCH, KERR & CO. are exporting Roney mechanical stokers in direct competition with those of English manufacture. Two of these stokers have just been supplied to one of the largest electric lighting companies in London, and at the same time five were sent to Johannesburg, South Africa, for the Consolidated Gold Fields Co.

THE NATIONAL TUBE WORKS CO., McKeesport, Pa., has recently made the following foreign shipments of iron pipe: To England and Scotland, 500 tons each; Palembang, Sumatra, 215 tons; Sydney, Australia, 130 tons; Antwerp, Belgium, 120 tons; Rotterdam, Holland, 115 tons; Tampico, Mexico, 90 tons, and to South African ports, 60 tons. This does not include the shipments through export commission houses, but only direct transactions.

THE ABENDROTH & ROOT MFG. CO., 99 John St., New York, reports that the demand for its spiral riveted steel pipe for water-works construction has been so great since the first of the year that it is obliged to refuse orders. It reports also a large export trade in both spiral pipe and the Root boilers. The company has just made a foreign shipment of 15,000 ft. of 12-in. pipe, and foreign shipments within the last week have included pipe and boilers to Alexandria, Egypt, and Tokio, Japan.

THE VULCAN IRON WORKS, Toledo, O., shipped one of its class B, 55-ton steam shovels to Sweden some time ago. This order was the result of a tour in the United States by a party of Swedish gentlemen interested in iron mining. They visited the mines on the Mesaba range, and were so impressed by the rapid and economical method of working pursued there that they decided to adopt it in a Swedish mine under their control. Recent reports state that the shovel is doing highly satisfactory work, and is exciting great interest among the Swedish engineers.

THE REESE-HAMMOND FIRE BRICK CO., Bolivar, Pa., has been making extensive repairs at its plant in Bolivar. The plant formerly had a capacity of 70,000 bricks a day, and it is expected that by the end of this year the capacity will be 150,000 a day. The company is experimenting with an enamel brick, highly and richly colored, for building purposes. The second kiln of this kind of brick was opened a few days ago, and it is now almost assured that the brick will be a success for the purpose for which it has been made. The company has made two recent advances in wages, one April 1 from 7 to 25% and the second advance Aug. 1 from 5 to 10%. The two advances made an average increase in wages of about 20%.——The stockholders of the Reese-Hammond Co. have purchased the works of the Glade Fire Brick Co., near Fairmount, W. Va., and will operate the same under the name of the Hammond Fire Brick Co. The plant has a present capacity of 25,000 bricks a day, but it is announced that this will be doubled. The purchase includes 700 acres of valuable coal and fire clay deposit. The officers of the Fairmount company are: Pres., J. B. Hammond; Vice-Pres., T. M. Berkey; Secy., I. Brett; Treas., E. R. Hammond.

NEW COMPANIES.—The Drake Acetylene Generator Co., Corning, N. Y.; $5,000; Charles E. Drake, Alfred N. Gamman, Charles W. Hayt, Corning.

Fette Engine Co., Indianapolis, Ind.; $20,000; John H. Murphy, Peter Kretzer, Frank J. Fette.

Passaic Mining and Smelting Co., Spokane, Wash.; $1,000,000; C. M. Parker, W. S. Rogers, W. C. Dagleish

Chicago Malleable Castings Co., Chicago, Ill.; $100,000; J. P. Grier, W. H. Tuttle, C. M. Smith.

Phoenix Cement Co., Nazareth, Pa.; $10,000; J. H. Beck, Nazareth; F. C. H. Schweyer, Allentown; F. H. Banks.

National Foundry Co., Erie, Pa; manufacture iron and steel; $100,000; E. D. Wetmore, J. P. Jefferson, Warren.

The Nine Mile Canal & Reservoir Co., Bayard, Neb.; $12,000; W. Peters, H. Stephens, of Bayard.

The Model Rubber Co., Woonsocket, R. I.; $100,000; F. J. Flynn, P. J. Wren, T. D. Brennan, Woonsocket.

The Standard Motor Carriage Co., Portland, Me.; $500,000; C. G. Whitcomb, Reading; F. H. Bates, Hyde Park.

Union Iron Works, Buffalo, N. Y.; $350,000; C. R. Baird, of Philadelphia; T. B. Riter, of Pittsburg; W. C. Cromwell, Buffalo.

American Equipment Co., No. 76 Montgomery St., Jersey City, N. J.; construct and equip railroads; $100,000; H. A. V. Post, John D. Reynolds, New York; Charles C. Wheeler, Bayonne, N. J.

Marietta Electric Manufacturing Co., No. 1 Montgomery St., Jersey City, N. J.; $125,000; Edward Barr, Herbert B. Coho, Edwin L. Rembold, Marietta, Pa.

Central Asphalt Co., Corporation Trust Co.'s Bldg., Jersey City, N. J.; $100,000; George W. S. Whitney, Frank E. Blackwell, William H. Winters.

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